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MEDICAL OFFICER OF HEALTH,

CITY OF GLASGOW.

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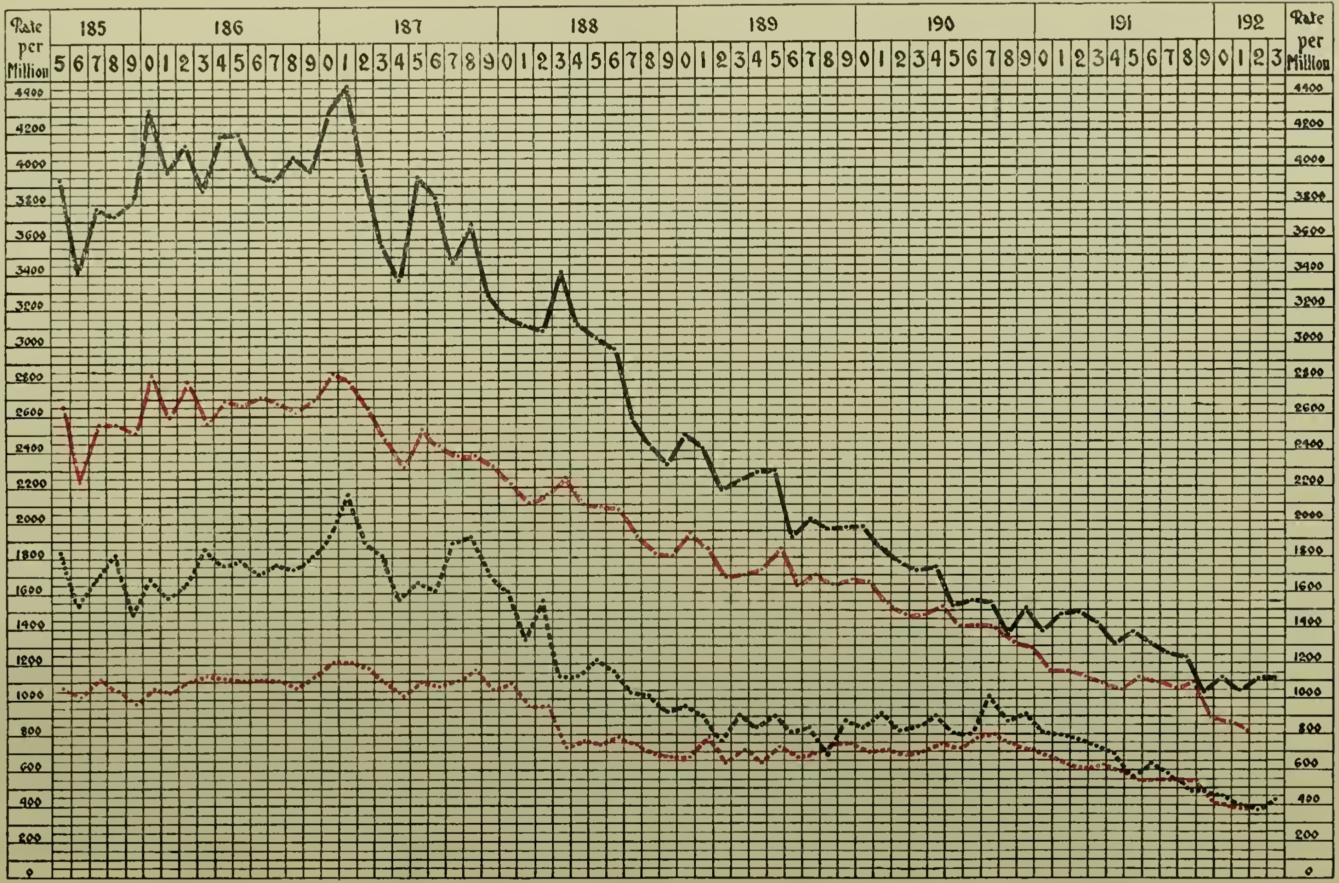

PREFACE

The divergence in the estimates of population arising from some doubt as to the accuracy of the Census figures referred to in previous reports renders all estimates of birth and death rates based on them for the moment provisional.

During 1923 the deaths of persons belonging to Glasgow numbered 14,875, being 2,972 fewer than in 1922; and the births 26,710, or again 1,588 below the number born in the previous year.

On the local estimate of population (1,088,957) we had thus a death rate of 13·7 per 1,000 and a birth rate of 24·5; while on the lower estimate of the Registrar General (1,041,400) these rates would be 14·3 and 25·6 respectively.

The fall in the death rate compared with 1922 is mainly owing to there having been 903 fewer deaths from pneumonia, 702 from influenza, 727 from measles, 162 from congenital debility and premature birth, and 58 from pulmonary tuberculosis.

The death rate among infants of both sexes under one year has for the first time on record fallen below 10 per cent.; for male infants it was 99 per 1,000 births, for female infants 79, for both together 89.

The corresponding rates in 1911-15 were for males 146 and for females 119.

For most months of the first year of life the causes of death fall within the groupings of disease which are common to infants and adults, respiratory, digestive, nervous, &c., but there is one group from which death often arises in the early weeks of life which is special to the period and is best described by the term "Immaturity." This condition arises from low vitality rather than from disease, and includes congenital debility, premature birth, &c. Here, so far as our present knowledge warrants a definite statement, the causes of death are developmental rather than the result of causes operating only after birth, and their social distribution is fairly uniform. Hitherto these deaths have represented a refractory element in the infant mortality rate and for this reason it is worthy of note that some improvement is now becoming apparent, although they still contribute fully one-third of the total infant deaths. For male infants the "Immaturity" rate in 1911-20 averaged 46 per 1,000 births, but in the three years following it fell to 41, 40, and 36; for females it was 36 for the period 1911-21 and has since become 34 and 31.

HOUSING.

Slum Clearances.

By far the most important sanitary occurrence of the year was the passing of "The Glasgow (Cowcaddens, &c.) Improvement Scheme, 1923, Confirmation Order, 1923," made by the Board of Health under the Housing (Scotland) Acts, 1890-1923.

Details of the Scheme as submitted were included in the Annual Report for last year. It was confirmed by the Scottish Board of Health on 19th October, 1923, subject to such modifications as are related in Part I of the Second Schedule of the Order, and refer mainly to certain premises devoted to business purposes, and to others occupied as houses in Marlborough Street which had undergone extensive repairs while the application was pending.

By the end of the year 107 families had been displaced from houses in several portions of the Northern Division (Muse Lane, Milton Lane, Maitland Lane, William Street (174 Cowcaddens), and Water Street).

Of these, 101 were accommodated in houses at Hamilton Hill, while of the remaining 6, 2 were evicted for non-payment of rent, 2 died, and 2 declined houses at Hamilton Hill, and found accommodation in other districts. Of those accepting the Hamilton Hill houses, 13 were from one-apartment houses, 83 from two-apartment houses and 5 from three-apartment houses; and of these 79 went to two-apartments and 22 to three-apartments.

The average weekly rental of the one-apartments vacated was 3s. 7d.; of the two-apartments 4s. 8d.; of the three apartments 5s. 10d.; while for those at Hamilton Hill the minimum charges are 6s. 6d. per week for two-apartment houses and 7s. 5d. for three-apartment houses—rates being included in both cases.

A second scheme on similar lines but more extensive in range is now in preparation. In connection, however, with the whole problem of housing whether arising from slum clearances, overcrowding, structural decay or the natural growth of population, the rate at which new houses are being supplied requires consideration.

Empty Houses.

The margin of *unoccupied* houses, at its lowest (143) in 1921, and 325 in 1923, is wholly inadequate to meet the present overcrowding even on the assumption that all of them are suitable in size for the families requiring them and otherwise fit for habitation. One half (163) are of five apartments and upwards, 43 are of one apartment, 55 of two apartments, and 32 each are of three and four apartments.

New Houses.

During the past five years (1919-23) linings have been granted by the Dean of Guild Court for the erection of 6,144 houses, which represents an annual average addition of slightly more than 1,200. How far short of an adequate supply this is will be better appreciated if we consider alone—(1) the annual excess of births over deaths; and (2) the existing overcrowding of rooms by persons in excess of the limits of healthy occupancy.

By referring to the table on page 24, it will be seen that the average number by which births exceed deaths in the last four years is more than 10,000 annually.

To express the degree of overcrowding as affecting the population generally, recourse must be had to an assumed number of persons who may healthily occupy an apartment, and thereafter regard every room occupied by persons beyond this number as overcrowded. For this purpose the Registrar General for England adopted 2 persons per room, but as the apartments of a house in Scotland, although fewer in number, are on the average larger in size than in England, I have taken for the purpose of this illustration 3 persons per room.* The Registrar General for Scotland in the report of the 1921 Census presents a table of housing conditions (27) showing the number of persons occupying houses of sizes ranging from 1 to 19 apartments, and the number of persons occupying them ranging from 1 to 24. Leaving aside 24,853 houses of one apartment occupied by not more than 3 persons each, 86,425 houses of two apartments occupied by not more than 6 persons, and so on for houses of large size, there remain 14,131 one-roomed houses occupied by from 4 to 6 persons each, 1,643 occupied by 7 to 9 persons each, and 62 houses of one apartment in which there are between 10 and 12 persons each.

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*See M.O.H. Census Report, 1901, page 21, and Report of the Royal Commission on the Housing of the Industrial Population of Scotland, 1917, page 292.

Similarly with regard to two-apartment houses, 19,596 are occupied by from 7 to 9 persons each, 2,832 by from 10 to 12 persons and 117 with more than 12 occupants. Further details are contained in the summary which follows. Taken together, overcrowding is thus present in almost 40,000 houses (39,922), or in 19 per cent. of the total houses of four apartments and under. Many of these houses no doubt are quite suitable for occupancy, but they all are occupied by persons in excess of the number who may healthily occupy them.

TABLE.

OVERCROWDING (MORE THAN THREE PERSONS PER ROOM).

Persons per Room		4-6	7-9	10-12	More than 12
1 Apartment,	...	14,131	1,643	62	—
2 Apartments,	...	—	19,596	2,830	117
3 ,,	...	—	—	1,376	115
4 ,,	...	—	—	—	52
		14,131	21,239	4,268	284

TOTAL, ... 39,922 = 19 per cent. of 1-4 apartment houses.

To meet this we have 325 empty houses and are adding new houses at a rate on the average of 1,200 a year.

It will, therefore, be useful for comparative purposes to recall the rate of addition during a period of active building such as occurred in the 90's decade, when over 22,000 houses were added to the number occupied during the ten years 1891-1901. This represented an increase of 16 per cent. on the number of houses occupied in 1891, and a corresponding rate of increase at the present time implies the erection of 3,804 houses annually in place of 1,200. There is thus need to emphasise the inadequacy of the rate of our present additions. Instead of the shortage becoming reduced, it is increasing.

A further aspect of the question deserving of some attention is the tendency to multiply the number of rooms in a house without at the same time adequately increasing the total floor area, and so tending to a smaller size of room, especially of those used for sleeping apartments.

When a comparison is made between the size of rooms provided under building regulations with those of the standard house for which a subsidy may be obtained, some striking differences emerge, and I take this opportunity of thanking Mr.

Nisbet and Mr. Bryce for supplying many of the measurements on which the comparison was based.

The Standard House compared with that provided under Building Regulations.[*]

One object of recent Housing Schemes is to provide houses of an improved character. For this purpose ample space around the house was essential for free circulation of air and access of light, and this is to be accomplished by limiting the number of houses per acre. The apartments must also be so arranged that through ventilation of the house is possible.

It was also desirable, and especially, I think, with us in Scotland where the kitchen is so often also the living room and also frequently a sleeping room, that the preparation and cooking of food with the subsequent cleaning up should be provided for separately, and so a scullery is among the requirements.

With this explanation we may now compare the minimum requirements of the standard house with the equivalent provision in houses built under earlier building regulations. For this purpose the material most readily available to me is that applying to Scotland and Glasgow.

In 1920 the Board of Health issued a memorandum prescribing a minimum area of 790 square feet for six apartments and scullery, and a minimum height of ceiling of 9 feet on the ground floor of tenement houses, but 8 feet 6 inches in all others save in the upper floor of two-storey cottages where it might be be 8 feet.

Subsequently the total area of 790 feet was extended to 820 by the addition of 10 feet to each of the first and second bedroom and the scullery.

It will be sufficient if we limit the comparison to dwellings of three, four, and five apartments by omitting one of the smaller bedrooms.

Comparison.

	Floor Area No. of Apartments			Cubic Space No. of Apartments		
	5	4	3	5	4	3
Standard House, ...	740	660	540	6,290	5,610	4,590
Building Reg. House—						
Maximum, ...	1,019	702	552	10,190	7,020	5,520
Minimum, ...	811	584	395	8,110	5,840	3,950
Average, ...	950	677	447	9,500	6,770	4,470
Glasgow Housing Scheme (Average), ...	801	696	568	6,809	6,916	4,828

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[*] The following paragraphs are taken from a lecture on "Housing Standards" delivered under the auspices of the Chadwick Trust.—*February*, 1924.

Five-Apartment House.—The required minimum floor area of the rooms and scullery here is 740 feet, which is 70 feet less than the minimum floor area provided under building regulations, and 1,800 feet short of its cubic space.

Note, however, that if a scullery (80 square feet) were added to the average four-apartment house of the building regulations, we should have fully the 740 feet floor area of the five-apartment standard house, so that the rooms of the five-apartments represent the same floor area as the average building regulations house of four apartments, and the fifth room has been obtained by allowing two of the three bedrooms only 80 square feet each.

Four-Apartment House. — The standard house here has 76 feet more floor area than the smallest, but slightly less than the average building regulations house, while the cubic space is 200 feet less than our smallest.

Three-Apartment House.—Both in floor area and cubic space the standard house exceeds all save the maximum provided under building regulations, but has 900 cubic feet less space than it has.

Although, as will be observed from the bottom line of the table, houses provided under local Building Schemes interpret liberally the standard house sizes, the tendency toward reduction in the size of the smaller bedrooms cannot be regarded without some apprehension of its effect on our conception of a healthy house.

Housing in relation to the Spread of Tuberculosis.

During the year attention was directed to the relation between housing and tuberculosis, and the question broadly raised whether, when opportunities of mass infection occur—as, for example, when a member of a family occupying a smaller sized house contracts pulmonary tuberculosis — there was greater danger of transmitting the disease to healthy members than where contrary conditions prevailed. The point is of some importance, and occasion was taken to recast information available in the office records to show the prevalence of tuberculosis among the occupants of smaller sized houses.

The house distribution of the cases was taken from the notifications for 1920-23, while the death rates were calculated on a standardised house population. These may be summarised as follows: —

NOTIFICATIONS—PULMONARY TUBERCULOSIS, 1920-23.

PERCENTAGE INCIDENCE ACCORDING TO SIZE OF HOUSE.

	Cases	Per Cent.	Percentage of Population Living in Houses of Sizes Quoted
1 Apartment, ...	1,123	17·96	12·9
2 Apartments, ...	3,121	49·93	49·5
3 Apartments, ...	984	15·74	21·0
4 Apartments and up,	526	8·41	16·0
Institutions, ...	485	7·76	
	6,239	99·80	

The indication of this table is that nearly 13 per cent. of the population living in one-apartment houses contributed nearly 18 per cent. of the cases, while 21 and 16 per cent. of the population living in three and four-apartment houses contributed 16 and 8 per cent respectively. Approximately one half of the population lives in two-apartment houses, and these supplied one half of the cases. The fact that a smaller proportion of the population living in one-apartment houses should contribute twice as many cases of phthisis as a larger percentage of the population living in four apartments and upwards, contains the elements, at least, of a suggestion that the size of the house does play some part towards producing mass infection and increased incidence.

The extent of this, however, can only rightly be measured when corrections have been made for age and sex distribution. A re-arrangement of figures given in a paper published about 10 years ago on "The House as a Contributory Factor in the Death Rate," shows that, while the death rate from all causes in four-apartment houses equals 50 per cent. of the rate occurring in one apartments, the phthisis deaths in four apartments are equal to only 32 per cent. of those occurring in one-apartment houses, and it is reasonable to regard some part of this relatively greater incidence of phthisis in one-apartment houses as arising from the element of mass infection.

	Calculated Death Rates		Taking 1 Apartment Rate as 100	
	All Causes	Phthisis	All Causes	Phthisis
1 Apartment, ...	20	1·88	100	100
2 Apartments, ...	17	1·36	85	72
3 ,, ...	13	0·87	65	45
4 ,, ...	10	0·61	50	32

VENEREAL DISEASES.

The work of the treatment centres is described on pages 112-120, and may be here summarised.

	1923	1922
In Patients, ...	849	783
Aggregate Days' Residence, ...	36,920	29,865
Average Days' Residence, ...	43·5	38·1
Out Patients, ...	4,794	5,075
Aggregate Attendances, ...	116,436	101,914
Average Attendances, ...	24·3	20
Pathological Examinations, ...	17,086	14,849

There was thus a slight increase in the number requiring indoor treatment, a reduction in the number of new cases seeking outdoor treatment, but an increase both in the length of residence and in the number of attendances per head at the outdoor treatment centres.

Collectively, 2,498 cases (1,601 males, 897 females) were discharged from the centres after completing treatment and observation for cure; but 1,431 cases ceased attending before completing treatment, and 1,668 ceased after receiving a course of treatment, but before tests for non-infectivity could be applied; a total (3,099) which compares unfavourably with the 2,498 who were medically discharged.

In last year's report attention was drawn to the handicap arising from the present practice of farming out their responsibility for treatment by the Local Authorities, and the question was raised generally of the need for a policy on different lines. This view was further developed in the following paper, which was submitted to the Conference on Social Hygiene at Wembley, in May of the present year:—

LOCAL AUTHORITIES AND VENEREAL DISEASE.

THE NEED FOR A POLICY.

When the Royal Commission on Venereal Diseases reported in 1916, it recommended the formation of treatment centres throughout the country for the double purpose of extending facilities for the early diagnosis of these diseases by laboratory methods and their adequate treatment. For this purpose schemes were to be organised by the Local Authorities and financed to the extent of 75 per cent. by the Treasury.

Within a comparatively few years preceding the appointment of that Commission, new methods of clinical research had thrown a wide net round many diseases not formerly regarded as syphilitic in origin, and new therapeutic agents offered results with a precision unknown to earlier methods.

Moreover, the circumstances of the period in which the report was issued were exceptional. There was a rising tide of venereal disease associated with war conditions and a mixing of strains which added virulence to the infections.

In the urgency thus arising the obvious course was to utilise whatever centres of medical treatment existed, and equip them for their new purpose. Hospitals and dispensaries everywhere co-operated with Local Authorities, and the value of their combined action is illustrated by the growing volume of attendance which falls to be recorded year by year, but more especially, I think, by the growing ratio of attendance to cases. In England it is 21; in Glasgow it was 10 in 1919, but 24 in 1923.

In 1922—the last year for which complete returns are available—there would appear to have been 185 treatment centres in England and Wales and 36 in Scotland—a provision, roughly, of 1 centre for every 190,000 of the population.

In the same year 68,600 cases presented themselves for treatment for the first time in England and Wales, and 12,542 in Scotland, which together might be taken to represent an attack rate of almost 2 cases (1·9) per 1,000 of the population per annum. This cannot be an accurate reflex of the actual number occurring, if only for the reason that syphilis and gonorrhœa are represented in about equal numbers, and we know from other sources that the ratio of syphilis to gonorrhœa is about 1 to 3 or 4.

For the year ending 31st March, 1923, the grant to England and Wales would appear to have been £326,634, and to Scotland for the calendar year 1922 £65,783; together £392,417, and if we add one-third to this to represent Local Authority contribution, we have a total cost of well over half a million (£523,223) of pounds annually.

As the total attendances for the period we are considering numbered 1,832,231, this works out at 5s. 8·5d. per attendance, and £5 14s. 2d. per case on an average of 20 attendances per case. The ratio of attendances to cases, however, in Scotland was only 11.

These facts, however, lie on the surface, although I think they support the impression that no inconsiderable use is being made of the facilities provided.

But there are many other aspects of the problem which are of importance to Local Authorities, and which may best be put by a succession of questions and answers.

1. Do the figures for successive years show a progressive reduction in the number of persons presenting themselves for the first time, or is any reduction which can be shown simply a return to what may be regarded as a normal prevalence in this country in time of peace?

The difficulty here is that we have no pre-war data with which to compare present experience. In our local experience the cases attending outdoor centres for the first time were approximately equal in number in the years 1922 and 1923, but both were lower by about 700 (in a yearly number of between 5,000 and 6,000) than in 1920 and 1921.

This coincides with what would appear to be a common experience in this country and abroad, but it does not answer the question whether the reduction is a recession from post-war prevalence or is to be ascribed to the operation of the treatment centres.

2. Is the ratio of syphilis to gonorrhœa as seen at treatment centres a true index of their relative prevalence?

Australian, American, and Swiss reports coincide with the experience of our own Navy and Army that the usual ratio is 1 to 3 instead of an equal distribution as our local figures at least suggest.

The reason would seem to lie in the lack of appreciation of the gravity of gonorrhœal affections and failure to seek treatment unless the symptoms are urgent.

3. What proportion of persons discontinue treatment without approval of the clinical officer?

Experience here is by no means uniform. For all the Glasgow centres 43 per cent. of the total were still under treatment at the end of the year 1922. Of the remainder who ceased attending during the year, 55 per cent. were discharged medically, 45 per cent. ceased attendance without consent of the clinical officer.

In a special survey of 367 cases of syphilis by the clinical officer of the Broomielaw centre (which is under municipal direction) 59 per cent. ceased attendance after the first course of treatment, and 15 per cent. at the end of the second course. These are not reassuring figures.

4. Is the type of infection undergoing attenuation to a greater degree, that is, than was observed before the war? If decreasing virulence is observed, how far is it to be explained by the lessened opportunity of mixing several strains of infection which war conditions presented?

The impression of those who have been treating these diseases for some years would appear to be that the cases are not now so severe clinically. Phagedenic cases are seldom seen, and at the Glasgow centres a really rampant case of syphilis is rare.

Such result might follow reduced potency of the organism, alteration in the strain, or earlier recourse to treatment.

5. Has evidence been collected to indicate the social conditions under which the courtesan lives or the economic strain of underpaid female labour?

The centres afford no answer.

6. Is the country getting a return in reduced prevalence of Venereal Diseases, or in decreased virulence of the infection commensurate with the cost?

There is, I think, a growing volume of opinion to the contrary.

7. Is there any evidence or has sufficient time elapsed to show whether the late sequelæ of both diseases are being reduced? Is congenital syphilis less prevalent? or ophthalmia neonatorum? or stricture? Is the admission rate of general paralysis of the insane reduced? Is there a reduced demand on the beds in hospitals for diseases of women? Are cases of specific bone affections or syphilitic affections of the heart lessening in frequency?

The returns from treatment centres afford no answer to any of these questions, and yet an answer is essential if we are to understand the true position of Venereal Diseases.

Congenital syphilis was reported from all the centres in Glasgow in 652 instances in 1922, and in 818 in 1923.

Ophthalmia neonatorum as notified has risen from 15 to 20 per 1,000 births between 1914 and 1923, having reached 30 in 1917 and 31 in 1921. Much of this, however, I think, is to be regarded as due to an increasing compliance with the requirements of the Order, and not as a true reflex of the prevalence of gonorrhœal ophthalmia. Round about the years 1917, 1918, and 1919, the proportion of swabs found positive to the number examined was fully a third. This has fallen to less than a fifth now, namely 19 and 15 per cent. in 1922 and 1923, but the compulsory use by midwives of nitrate of silver as an eye lotion at birth may be regarded as vitiating any comparison with preceding years.

8. Last of all, but not least in importance, is the question—what effect is the treatment centre having on the social habits of its clientele?

Each clinical officer could throw some light on this from his own experience, but published returns are silent on the question.

I am able through the courtesy of Dr. Brown, the clinical officer of the Municipal Treatment Centre in Glasgow, to submit some figures which are, I think, of considerable, if not grave, significance.

It is a distribution of cases presenting themselves during a recent year according to the number of times they had formerly undergone a course of treatment followed by cessation of symptoms. It is not necessary here to inquire whether the reappearance of symptoms arose from *de facto* reinfections or were merely recrudescences. The point rather is that so large a proportion of them—after an interval of freedom from symptoms—had again exposed themselves to infection, and reappeared for treatment with all the symptoms of a primary attack. The patients were all males, 745 in number. 359—or rather less than half of them — had no earlier record of symptoms, *i.e.*, they were without doubt primary attacks. But 311 after an interval of freedom from symptoms had recently exposed themselves to infection for a second time, and suffered a recurrence of symptoms—61 for a third time, 12 for a fourth time, and 2 for more than four times. In other words, more than half the total number were habitual libertines.

If this is a fair sample of the habits of patients attending male clinics elsewhere, then we must frankly recognise that the treatment centres are being put to a use foreign to the intention for which they were created, and that a corresponding proportion of their annual cost is being diverted to the furtherance of promiscuity.

The ablution centre failed to gain acceptance because of the conviction that it would lend itself to this very purpose, and if the experience of the centre I have submitted is a fair reflex of the experience of other male centres, then I suggest that the time has come to draw up the veil of secrecy which was devised to replace the veil of ignorance of former times.

It is, I think, a fair description of the position since treatment centres were established to say that while valuable clinical knowledge has been acquired and much suffering relieved, Local Authorities have learned little of the distribution of V.D. and even less of what may be called its social epidemiology—if one may apply this term to the setting in which much of it occurs—the underpaid female labour, the inadequate housing and other conditions which are recognisably associated, I think, with some at least of its phases. They adopted without question and as in a sense an "emergency measure" in a time of national trial the duty of arranging schemes for treatment which in the larger towns, at least, necessitated much "farming out" of their responsibilities to existing institutions.

These are not the lines on which they have endeavoured to cope with other diseases. Nor would the position be improved, so far as I can see, by passing over to them for disciplinary purposes those who fail to continue treatment.

The proposal to compel a patient to continue treatment is based on a complete misapprehension of the powers of Local Authorities. They may prevent him from spreading infection and for this purpose remove him to hospital, but they cannot enforce a specific method of treatment. This, I understand, is common law.

If notification is to be considered, it must be approached, I think, on much wider lines. To those who regard social evolution as a completed movement it may be useful to suggest the contrast between present day customs and what we believe to have been those of the period of phallic worship.

The Royal Commission considered the question of notification and expressed the opinion that better results might be obtained by a policy of education and the provision of increased facilities for prompt diagnosis and adequate early treatment (Venereal Disease Report, paragraph 167). But they said further, "that the situation may be modified when the facilities have been in operation for some time, and that the question of notification should then be further considered." They thought it also possible that when the general public became alive to the grave dangers arising from Venereal Disease, notification in some form would be demanded, and that the measures which may be required in the future must depend on experience gained after existing deficiencies have been remedied (paragraph 168).

In my opinion the time for further consideration has arrived.

Until quite recently, I was inclined to regard congenital syphilis in quite young children and ophthalmia neonatorum of gonococcal origin—constituting as they do unimpeachable evidence of physical injury to third parties—as offering means of dealing directly with infectious parents and preventing a like injury to later children.

The foregoing record of a male treatment centre suggests a much wider need. It is that Local Authorities should themselves undertake responsibility for treatment and prepare for a comprehensive study of the whole problem of the distribution of Venereal Diseases. Towards this end notification by name and address is the first step in the programme. But to be effective notification would, I think, require to be applied simultaneously to large areas which would include, it might be, many contiguous Local Authorities. Sectional notification by individual Local Authority districts would, I believe, defeat the object.

Paragraph 162 of the Venereal Disease Report strikes, I think, a false note in suggesting that the value of notification is to be assessed rather by its power of ensuring continued treatment of the individual than of aiding in the provision of general preventive measures. Both, in my opinion, are required, and they are of equal importance.

A. K. CHALMERS,
Medical Officer of Health.

Sanitary Chambers,
Glasgow, August, 1924.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1923.

SECTION I.

POPULATION.

The population of Glasgow at the middle of the year, 1923, has been estimated at 1,088,977, compared with 1,081,933 for the previous year. These numbers are based on a return of the occupied houses at Whitsunday of each year supplied by the City Assessor.

The Registrar-General, however, calculates the birth and death-rates, &c., on an estimated population considerably below these figures as shown in the following summary:—

Year	M.O.H.	R.G.	Difference
1921	1,075,000	1,034,069	...
1922	1,081,933	1,037,800	– 44,133
1923	1,088,987	1,041,400	– 47,587
Increase ..	7,054	3,600	

The number taken for 1921, namely, 1,075,000, was an estimate of the Glasgow population, the difference between that and the Census of 1,034,069 being explained in previous reports as the estimated number of Glasgow people resident in coast and country resorts during the month of June when the Census was taken.

For subsequent years the estimates based on the inhabited houses in the City indicate an increase of approximately 7,000, whereas the Registrar-General estimates an increase of only about half that number.

It is of interest to compare these figures with a record of births and deaths showing the natural increase during the post-war years. For each year it is seen that the excess of births over deaths is 50 to 100 per cent. more than the increase of population obtained by the estimates made by the department, and three times that obtained by the Registrar-General.

Year	Births Registered	Deaths Registered	Natural Increase—Excess Births
1919	26,109	18,613	7,496
1920	32,992	17,090	15,902
1921	30,072	16,051	14,021
1922	28,547	18,139	10,408
1923	27,044	15,311	11,733

The estimated population, therefore, on which all rates in this report have been based is nearly 50,000 above that taken by the Registrar-General, and will cause a difference of approximately one per thousand for total births and deaths.

Ward Populations.—The distribution of the population throughout the City is given in Appendix Table I, which shows the estimated number of inhabitants in each municipal ward, together with the distribution of those resident in Institutions and on shipping in the harbour. Owing to the practical elimination of unoccupied houses during recent years there is little or no movement of population, so that there are few differences worthy of note in the number of persons in each ward, with the exception of those in which Corporation Housing Schemes are situated. These are Provan, in which is included the Riddrie Scheme, with an increase of 2,403; Fairfield, with the Greenhead Housing Scheme, which shows an increase of 1,521; and Pollokshields, in which is situated the Mosspark and Craigton Housing Schemes, with an increase of 3,505.

The largest populations are in Cowcaddens, 43,118; Dalmarnock, 42,089; and Hutchestown, 41,265. These are artisan or working class districts, and may be compared with the residential areas of Cathcart, with 15,642; Langside, 19,013; Pollokshields, 21,995; and Kelvinside, 22,124.

Institutional Population.—The total number of persons in institutions such as hospitals, lodging houses, hotels, and special homes, &c., was obtained by special enumeration on the night of 30th June, and was found to be 29,467, or 326 more than the preceding year. Little variation has occurred in the ward distribution of this population, the only difference that need be mentioned being an increase of nearly 500 in Maryhill district, where the barracks had a population of 1,100, as against 600 in June, 1922. The shipping population remains the same, the numbers given being those returned at the Census in 1921.

Density.—Appendix Table I also contains the acreage of each of the wards, and the number of persons per acre. Here again there is little variation, few of the wards showing appreciable alteration except the three wards mentioned above as containing the sites of housing schemes, *i.e.*, Provan, Fairfield, and Pollokshields. The density of the City generally has risen from 56 to 57 persons per acre, the acreage remaining the same.

Inhabited and Unoccupied Houses.—At Whitsunday the total number of inhabited houses in the City was 237,732, an increase of 1,507 on that of the previous year. The ward distribution of these is given in Appendix Table II, showing the increase or decrease for each of the municipal wards. The decreases totalling over 300 are more than counter-balanced by the new houses occupied in the housing schemes, where Provan has 548 more houses occupied; Fairfield, 313; and Pollokshields, 901. The next largest increase is that of Cathcart, where there are 27 more houses, all of which are probably cottages built on the outskirts of the town.

The number of unoccupied houses has increased again for the second year in succession since the lowest figure of 143 in 1921. The total number unoccupied is now 325, half of which, however, are among houses of five apartments and upwards. Most of the smaller houses are of the uninhabitable class. The ward distribution of these is contained in Appendix Table II, but a summary is here introduced to show the alteration that has occurred since before the war.

NUMBER OF UNOCCUPIED HOUSES CLASSIFIED ACCORDING TO NUMBER OF APARTMENTS.

	1913	1919	1920	1921	1922	1923
One apartment,	*4,169*	319	120	33	27	43
Two apartments,	*9,762*	181	72	17	27	55
Three ,,	*2,731*	21	9	9	10	32
Four ,,	*954*	13	15	8	20	32
Five ,, and up,	*1,094*	103	75	76	116	163
	18,710	637	291	143	200	325

Linings Granted by Dean of Guild Court.—Table III in the Appendix show the number of Dean of Guild Linings granted for the erection of houses during each year to 31st August, since 1914.

No linings for one apartment houses have been granted since 1916, and building was not begun on any pronounced scale until 1919-20, when the Corporation Schemes were started. Even the two-apartment house has not been encouraged, but last year 680 linings were granted for this size of house largely because of the building of houses for families to be displaced by slum clearances. Linings were granted for 286 houses of three apartments, 205 of four apartments, 104 of five apartments, and 46 for houses of larger size, in all, a total of 1,321.

Most of the linings granted were in respect of Corporation Housing Schemes.

TEMPERATURE AND RAINFALL.

An abstract of meteorological observations taken in the City is shown in Table IV of the Appendix. It gives a record of the temperature and rainfall during each month of the year, together with a comparison of the totals for preceding years. The average temperature for the year was 46·4, or slightly lower than that for 1922, and lower than for most of the preceding ten years. The rainfall (44·64 inches), however, was higher than in any year during the same period, and more than twelve inches greater than that of 1922, while the number of days on which rain fell was 260, as compared with 228 in 1922. The monthly records show that during the months of July, August, September, and October, nearly half the year's rainfall occurred.

LEGISLATION.

During the year the following Acts of Parliament and Regulations dealing directly with Public Health or having a bearing thereon came into operation:—

ACTS OF PARLIAMENT.

Dangerous Drugs and Poisons (Amendment) Act, 1923, *amends the Dangerous Drugs Act*, 1920, *and Section* 17 *of the Pharmacy Act*, 1868, *and prescribes the method of calculating percentages in liquid preparations for the purpose of the Poisons and Pharmacy Acts*, 1908, *and the Dangerous Drugs Act*, 1920.

Housing, &c., Act, 1923, *amends the enactments relating to the Housing of the Working Classes (including the amending and revocation of bye-laws), Town Planning and the Acquisition of Small Dwellings.*

Increase of Rent and Mortgage Interest Restrictions (Continuance) Act, 1923, *continues the Increase of Rent and Mortgage Interest (Restrictions) Act,* 1920, *and any enactment amending that Act, until the* 31*st July,* 1923.

Rent Restrictions (Notices of Increase) Act, 1923, *amends the Increase of Rent and Mortgage Interest (Restrictions) Act,* 1920, *with respect to the effect of notices to increase rent given thereunder, and for purposes consequential thereon.*

Rent and Mortgage Interest Restrictions Act, 1923, *amends and prolongs the duration of the Increase of Rent and Mortgage Interest (Restrictions) Act,* 1920, *and any enactment amending that Act, and making provision as to the rent and recovery of possession of premises in certain cases after the expiry of that Act, and for purposes in connection therewith.*

Workmen's Compensation Act, 1923, *amends the Workmen's Compensation Act,* 1906, *and the Act amending that Act, and amending the law with respect to employers' liability insurance, the notification of accidents, first aid, and ambulance.*

REGULATIONS, CIRCULARS, AND MEMORANDA.

Health Visitors—

Circular letter, dated 23rd August, 1923, stating that application for certification and registration may now be made, and enclosing form of application.

Chickenpox—

The Public Health (Chickenpox) Regulations (Scotland), 1923.

Tuberculosis—

Circular T.B., No. 5, dated 26th June, 1923, regarding the conditions under which treatment allowances to tuberculous ex-service men are payable.

Circular T.B., No. 8, dated 26th October, 1923, relating to tuberculous ex-service men and their vacational training.

Circular T.B., No. 9, dated 26th October, 1923, relating to tuberculous ex-service men, and notification to Ministry of Pensions where death occurs during institutional treatment.

Housing, Town Planning—

Circular No. 11, H. & T. P., 1923, relating to the provisions of the Housing, &c. (No. 2), Bill, and the course of procedure to be adopted by Local Authorities.

Unsound Food—

Order No. 452/S.34, 1923. Meat inspection.

Sale of Food and Drugs—

Circular, Public Health, No. VI, 1923, relating to whisky and to boric acid in cakes.

Milk—

Circular, Public Health, No. IX, dated 19th June, 1923, regarding certified and grade A (tuberculin tested) milk and pasteurised milk.

The Milk (Special Designations) Order (Scotland), 1923, Bacteriological tests for graded milk: instructions as to sampling and testing.

Circular, Public Health, No. 10, dated 30th July, 1923, regarding the regulations prescribing the labelling and composition of condensed milk.

The Public Health (Condensed Milk) Regulations (Scotland), 1923.

Circular P.H., No. XI, dated 10th August, 1923, regarding amendment of the Order dealing with Grade A milk (pasteurised) and Pasteurised Milk.

The Milk (Special Designations) Amendment Order (Scotland), 1923.

Circular, Public Health, No. XVII, dated 30th November, 1923, regarding the Regulations prescribing the labelling and composition of dried milk.

The Public Health (Dried Milk) Regulations (Scotland), 1923.

Port Local Authority—Fumigation of Vessels—

Letter, I.D., No. 149,060, dated 6th September, 1923, in regard to the fumigation of vessels under the Quarantine Regulations in force in the United States of America.

Instructions to Medical Officers of Health of Ports in regard to the fumigation of vessels to comply with the requirements of the United States of America, with form of certificate of fumigation.

Aliens—

Order in Council, No. 326, amending the Aliens Order, 1920, regarding restrictions on aliens.

Dangerous Drugs—

The Dangerous Drugs (No. 3) Regulations, 1923, amending Regulation 15 of the Dangerous Drugs Regulations, 1921, regarding the supplying of foreign ships.

SECTION II.

VITAL STATISTICS.

SUMMARY.

	1921	1922	1923
Population, ...	1,075,000	1,081,933	1,088,987
Acreage, ...	19,183	19,183	19,183
Persons per acre, ...	56	56	57
Number of Inhabited Houses,	235,537	236,225	237,732
Deaths—Number registered,	16,051	18,139	15,311
,, After correction for Institutions, &c., ...	15,625	17,850	14,875
Births—Number registered, ...	30,072	28,547	27,038
,, After correction, ...	29,710	28,289	26,710
Death-rate per 1,000 living—All causes, ...	14·53	16·50	13·66
Birth-rate per 1,000 living, ...	27·64	26·15	24·53
Deaths under One Year—After correction, ...	3,135	3,402	2,388
Deaths under One Year—Per 1,000 births, ...	105	120	89

The principal vital statistics for the City given in detail in the Appendix are here summarised for convenient comparison with the two preceding years. As there is little variation in the estimated population, the factor on which the rates are based remains practically stationary, so that the rates given more or less indicate directly changes in the actual numbers of births, deaths, &c.

The corrections referred to are the omission of births and deaths of persons whose home addresses are outwith the City, and the inclusion of others occurring elsewhere, but with addresses in the City.

The Registrar-General's estimate of the population of the City, as at the middle of the year, is 1,041,400. This lower estimate accounts for differences between rates given in this Report and those quoted from the Registrar-General's Report.

BIRTHS.

The number of births registered during the year was 27,038, or 1,509 fewer than in 1922, and 5,954 fewer than in 1920, when the highest post-war number (32,992) was recorded.

On the estimated population and corrected births, the birth-rate is equal to 24·53 per 1,000, compared with 26·15 in 1922, and 27·64 in 1921. For these years the Registrar-General estimates the birth-rate at 25·6, 27·3, and 28·7 respectively. This reduction in the birth-rate is associated with the present unfavourable industrial conditions, and a reduced marriage rate compared with 1920-21.

Appendix Table V contains the number of births for each municipal ward, and the rates per million of the population compared with the corresponding rates for 1922. The highest rates recorded are 34·4 in Mile-End, 33·6 in Cowcaddens, and 33·5 in Dalmarnock, while Calton, Provan, Exchange, and Kingston all had rates in excess of 30. Low rates are again recorded in the residential areas of Kelvinside with 10·0, Cathcart 11·8, and Park 12·4 per thousand persons living.

The following information from the Registrar-General's returns shows the birth-rates for Glasgow and Scotland for fifty years:—

	Glasgow	Scotland
1871-80, ...	36·6	34·9
1881-90, ...	36·5	32·4
1891-1900, ...	33·7	30·3
1901-1910, ...	31·2	28·4
1911-15, ...	27·4	25·4
1916 1920, ...	24·1	22·9
1921, ...	28·7	25·2
1922, ...	27·3	23·5
1923, ...	25·6	22·8

On the basis of local returns, the following comparison is made of the rates for several periods in Glasgow and other towns:—

	1921	1922	1923
Glasgow, ...	**28·7**	**27·3**	**25·6**
Edinburgh, ...	21·5	20·7	20·4
Dundee, ...	26·5	24·6	24·1
Aberdeen, ...	26·8	24·9	23·6
London, ...	22·1	20·9	20·2
Liverpool, ...	26·8	26·1	25·0
Manchester, ...	23·7	21·2	20·5
Birmingham, ...	24·1	21·5	20·4

MARRIAGES.

Glasgow.—Marriages per 1,000 Persons living.

1871-1880, ...	9·1	1918, ...	9·4
1881-1890, ...	9·3	1919, ...	9·0
1891-1900, ...	9·4	1920, ...	12·4
1901-1910, ...	8·8	1921, ...	10·7
1911-1915, ...	9·8	1922, ...	9·1
1916, ...	8·6	1923, ...	9.6
1917, ...	8·3		

The marriage rate has remained remarkably uniform at about 9 per 1,000 during the fifty years, the only marked exceptions being 1920, and 1921.

DEATHS.

The number of deaths registered in the City during 1923 was 15,311, compared with 18,139 during 1922, or a decrease of 2,828. This represents a death-rate of 13·7 per 1,000 persons, compared with 16·5 in 1922, and 14·5 for 1921, and is the lowest hitherto recorded in the City. This low rate is associated with a number of favourable conditions, such as a heavy rainfall in the summer and autumn months and a reduced prevalence of infectious and respiratory diseases, as well as digestive disease, especially among young children.

Appendix Table VI gives the number of deaths in each municipal ward together with the rates and corresponding figures for the two preceding years. The lowest rate recorded is 8·9 in Cathcart, followed by 9·4, in Pollokshaws, and 9·6 in Springburn, while Partick West, Fairfield, and Langside all had death-rates of less than 10. The highest rates recorded were 17·1 in Calton, 16·9 in Mile-End, and 16·1 in Dalmarnock.

According to the Registrar-General's returns, the rates for Glasgow since 1881 have been as follows:—

Glasgow.—All Causes—Death-rate per 1,000 living.

1881-1890, ...	24·22	1918, ...	16·50
1891-1900, ...	21·53	1919, ...	16·36
1901-1910, ...	19·56	1920, ...	15·30
1911-1915, ...	17·04	1921, ...	15·10
1916, ...	15·16	1922, ...	17·20
1917, ...	15·10	1923, ...	14·28

The following is a comparison of death-rates on local returns of several large towns in England and Scotland.

GLASGOW AND SEVERAL TOWNS—DEATH-RATE PER 1,000 LIVING.

	1921	1922	1923
Glasgow, ...	**14·5**	**16·5**	**13·7**
Edinburgh, ...	14·4	15·2	13·8
Dundee, ...	15·3	16·7	14·3
Aberdeen, ...	14·4	16·2	13·5
London, ...	12·5	13·5	11·2
Liverpool, ...	14·3	14·6	13·8
Manchester, ...	13·6	14·3	13·4
Birmingham, ...	11·3	12·1	11·0

Transfer Deaths.—The deaths on which the above rate is calculated include those of persons formerly resident in Glasgow, but dying in institutions or elsewhere outwith the City. On the other hand, those dying within, but with home addresses outside, are excluded. The "inward transfers" numbered 791 during 1923, compared with 879 and 753 for the two preceding years, while the "outward transfers" numbered 1,227, compared with 1,168 and 1,179. The causes of death in both these groups are given in Appendix Table No. VII.

CAUSES OF DEATH.

The principal causes of death are summarised as follows:—

SUMMARY OF DEATH-RATES PER 1,000 FROM PRINCIPAL CAUSES.

General Diseases—	1921	1922	1923
(*a*) Infectious, ...	1·66	2·00	1·46
(*b*) Septic, ...	·16	·15	·11
(*c*) Tuberculous—			
(1) Phthisis, ...	1·01	1·07	1·01
(2) Others, ...	·39	·37	·42
(*d*) Malignant (cancer, &c.),	1·17	1·19	1·19
(*e*) Other General Diseases,	·26	·78	·12
Diseases of the nervous system,	1·64	1·67	1·62
Diseases of the circulatory system,	1·68	1·73	1·78
Diseases of respiration, ...	2·39	3·49	2·17
Do. digestion, ...	·57	·54	·55
Congenital defects and malformations (including premature births),	1·07	·97	·81
Violence, ...	·53	·51	·47
All other causes, ...	2·00	2·03	1·95
All causes, ...	14·53	16·50	13·66

The death-rate from infectious diseases was 1·46 per 1,000, as compared with 2·00 in 1922, and 1·66 during 1921. This decrease is mainly accounted for by the reduction in the death-rate from measles, which during 1922 was exceptionally heavy because of its association with pneumonia and broncho-pneumonia during the first quarter; the rate at that period being 11·90 per million, in comparison with 5·14 for 1923. Whooping-cough on the other hand was more prevalent, and the mortality heavier. The mortality of the major infections—enteric, scarlet fever, diphtheria, &c—show little variation from the low rates of preceding years.

The death-rate from septic diseases is again lower at ·11 per 1,000, in comparison with ·15 and ·16 for 1922 and 1921 respectively. This reduction is to some extent due to the lesser prevalence of erysipelas which became quite a marked feature of the war years when restrictions were placed on the sale of alcohol. The rate for septicæmia is only half that of the preceding year.

The death-rate from pulmonary tuberculosis, 1·01, is less than that of 1922, which was 1·07, but is equal to the rate for the year 1921. The rates for recent years have been more or less stationary, but it is difficult to say to what extent the privations of the war years and the present industrial conditions have been responsible for the arrest in the downward movement of this disease. The rate for non-pulmonary forms of tuberculosis is slightly higher. It may be that the attention directed to this form of disease in recent years is reflected in its being more frequently recognised. Last year abdominal tuberculosis and tubercular meningitis were both higher, and these being mainly diseases of childhood, the higher numbers may to some extent be associated with the higher birth-rate of post-war years. Samples of milk submitted to bacteriological examination last year were found on 10 occasions to contain tubercle.

The death-rate from cancer (1·19) is the same as for the preceding year. This is the first time that the rate has remained stationary during recent years, and may to some extent be explained by the importance now attached to early recognition of the disease.

Rheumatism is another increasing cause of frequent illness, but with a much lower mortality rate than cancer, and has been made the subject of special inquiry by the Medical Research Council. In 1923 the death-rate in Glasgow from rheumatic fever was 51 per million, compared with 54 during 1922.

The death-rate from diseases of the nervous system during the year was slightly lower, while that from circulatory diseases was slightly higher due to organic heart diseases.

The death-rate of diseases of respiration is 2·17, compared with 3·49 in 1922 when, however, the outbreak of influenzal pneumonia referred to above occurred. The rates for bronchitis and pneumonia in 1923 are little more than half the corresponding rates of 1922.

The low mean temperature associated with rain during 1922 was favourable to a low diarrhœal rate, especially among young children, and this year it remains at a correspondingly low level.

In Appendix Table VIII deaths from several groups of diseases are given for the year 1923, together with rates and a comparison with the average of preceding quinquennia.

Age and Sex Distribution of Causes of Death.—This information is given in Appendix Tables IX and IXa. In every 1,000 deaths during 1923 there were 516 males and 484 females. The proportion of male deaths exceeded the female deaths at all ages, except from 10 to 20, from 25 to 35, and again at ages over 75. This is shown in the following table:—

PROPORTION OF MALE AND FEMALE DEATHS PER 1,000.

	–1	–2	–5	–10	–15	–20	–25	–35	–45	–55	–65	–75	75+	Total
Males,	91	37	23	12	6	10	13	23	39	60	78	83	41	516
Females,	70	32	19	10	7	11	12	28	32	46	65	79	73	484

With regard to the sex proportion of infectious diseases it is found that the female deaths from enteric fever exceeded the males in the proportion of 8 to 6, whooping-cough 199 to 172 and erysipelas 23 to 20; while the males were in excess for measles by 298 to 262, scarlet fever 37 to 35, and diphtheria 74 to 71. Influenza in the proportion of 37 to 27.

Pulmonary tuberculosis was again considerably more fatal among males, there having been 558 deaths to 408 females, while there were 109 male deaths from tubercular meningitis to 89 for females.

On the other hand deaths from cancer were more numerous among females, there being 694 deaths among them to 564 among males. The female deaths from 25-55 years considerably exceeded the males at these ages. Rheumatic fever was also the cause of a larger number of female deaths, especially at ages under 20. Deaths from alcoholism were more numerous among males, while deaths from cerebro-spinal fever were twice as many among males as among females.

Deaths from cerebro-spinal hæmorrhage were in excess for females, there having been 441 to 350 male deaths, but other nervous diseases were responsible for a higher proportion of male deaths.

Organic heart disease was responsible for the deaths of a considerably larger number of females, probably associated with the fact that the females live to older ages, although other circulatory diseases were considerably higher among the males.

The number of deaths from bronchitis was practically the same for both sexes, but pneumonia was much more fatal to men, there being 788 deaths among them to 573 females. Cirrhosis of the liver and violence were both responsible for nearly twice the number of male deaths as compared with females.

Quarterly Death-Rates.—For comparative purposes a table, based on the Quarterly Returns of the Registrar-General, is here introduced, showing the quarterly death-rates for years 1921-23:—

GLASGOW.—QUARTERLY DEATH-RATE PER 1,000, 1921-1923.

	1921	1922	1923
First Quarter, ...	17·4	28·1	15·0
Second ,, ...	14·8	15·6	14·4
Third ,, ...	12·6	11·1	11·5
Fourth ,, ...	14·5	14·2	15·3
Year, ...	15·1	17·2	14·3

Deaths in Hospitals, Nursing Homes, and other Institutions.—Details of the deaths in Glasgow institutions are given in Appendix Table X which indicates that over 30 per cent. of the total deaths registered occurred in such institutions. Table XI shows the numbers of those dying in several classes of institutions, who had no home address.

Uncertified Deaths.—The number of uncertified deaths has shown a gradual decrease over many years. During 1923 the uncertified deaths recorded numbered 57, as compared with 82 during 1922. The following table shows the number of these at several age-periods, together with percentages. The percentage of deaths among legitimate children not certified under 1 year was only 0·9 during 1923, and 0·5 per cent. last year. Among illegitimate children the rate was 1·2, compared with 1·9 for 1922, while there were none between 1 and 5 years.

Glasgow.—Uncertified Deaths, 1921-1923.

	Year	1921	1922	1923
Not Certified, - -	– 1 year,	21	21	22
	– 5 years,	4	—	1
	5 + years,	54	50	27
No Medical Attendance,	– 1 year,	13	6	4
	– 5 years,	—	—	—
	5 + years,	4	—	3
Attending Dispensaries,	– 1 year,	1	3	—
	– 5 years,	—	1	—
	5 + years,	—	1	—
Deaths of Illegitimate Children,	– 1 year,	314	313	244
	– 5 years,	102	175	108
Of these not Certified,	– 1 year,	5	6	3
	– 5 years,	—	—	—
Percentage not Certified,	– 1 year,	1·6	1·9	1·2
	– 5 years,	—	—	—
Deaths of Legitimate Children—				
Percentage not Certified,	– 1 year,	1·1	0·5	0·9
	– 5 years,	0·5	—	0·1

SECTION III.

INFANT MORTALITY.

The deaths of infants under 1 year during 1923 numbered 2,388, compared with 3,402 in the preceding year. The death-rate per 1,000 births was 89, compared with 120 in 1922, and 105 in 1921.

The deaths under 1 year in each ward of the City during 1923, with the relative rates per thousand births, are contained in Appendix Table XII, together with a comparison of the rates during the preceding year.

The following tables show (1) the infant death-rates in Glasgow since 1891; (2) the rates in other large towns; and (3) the death-rates among legitimate and illegitimate children per 1,000 births in each group.

During last year the rate among legitimate children was 85, while that of the illegitimate children was 163.

Infant death-rate during several periods (Glasgow):—

		Per 1,000		Per 1,000
Average of 10 years,	1891-1900,	149	1919, ...	114
,,	1901-1910,	135	1920, ...	106
	1911-1915,	134	1921, ...	105
	1916,	111	1922, ...	120
	1917,	129	1923, ...	89
	1918,	113		

The comparison with several large towns is as follows:—

	1921	1922	1923
Glasgow, ...	**105**	**120**	**89**
Edinburgh, ...	96	91	82
Dundee, ...	114	109	93
Aberdeen, ...	94	133	104
London, ...	80	74	61
Liverpool, ...	105	96	99
Manchester, ...	94	96	88
Birmingham, ...	82	86	72

Comparison of death-rates among legitimate and illegitimate children :—

Glasgow.—Death-rate per 1,000 Births.

	Legitimate	Illegitimate
1899-1900, ...	144	286
1901-1910, ...	126	457
1911-1915, ...	127	217
1916, ...	105	194
1917, ...	125	169
1918, ...	108	168
1919, ...	110	164
1920, ...	101	181
1921, ...	102	163
1922, ...	116	181
1923, ...	85	163

Ward Rates and Causes of Infant Mortality.—The variation in the infant mortality rate of the Municipal wards is usually quite definitely associated with the industrial and housing conditions, low rates being recorded in the good residential wards and high rates in the congested and poorer wards; and this is again illustrated during 1923, though in almost every ward it is lower than for the preceding year.

The highest rate is recorded in Dalmarnock Ward, where it was 118, followed by Calton, 113; Townhead, 109; Exchange, 108; while other wards with rates over 100 were Woodside, Mile-End, Blythswood, Provan, and Sandyford in the order named. The lowest rates occurred in Langside with 24; Camphill, 41; and Govanhill, 50.

The principal causes of death among infants under 1 year reflect to a certain extent the prevalence of particular groups of disease, and this is shown in the table which is given below, while specific causes in relation to age in months are contained in the Appendix, Tables XIII and XIV, for males and females respectively.

The most important factor in the reduction of the infant mortality rate during 1923 was the decrease among respiratory diseases, the rate for both sexes being less than half that of the preceding year, when in the first quarter pneumonia and influenza were prevalent.

Although the rates for digestive diseases are practically similar to those of 1922, a comparison over the period since 1903 is more favourable, and probably reflects in greater degree the improvement effected by Child Welfare work during the past decade.

There will, of course, be variations in the prevalence of those diseases, increasing during a warm summer and decreasing with a cool and wet summer. With improved knowledge, however, mothers are able to a large extent to counteract adverse influences of this nature.

Measles was much less prevalent than during 1922, but whooping-cough was slightly higher. These two diseases are responsible for nearly 80 per cent. of the deaths from infectious diseases among children under 1 year. Comparatively low prevalence of these diseases, coinciding with a reduction in the other diseases mentioned, has contributed very largely towards the record low infant mortality rate. It should also be noted that the immaturity rates for both sexes are also considerably lower, although still forming at least one-third of the total mortality rate.

The following table summarises the rates from the principal causes since 1911 :—

CAUSES OF DEATH.	Average 1911-15	Average 1916-20	1921	1922	1923
MALES—					
I. Immaturity, ...	46	46	41	40	36
II. Diseases of Respiratory System,	30	27	22	43	20
III. Diseases of Digestive System,	23	18	21	12	12
IV. Diseases of Nervous System,	10	8	7	7	7
V. Tuberculous Diseases, ...	6	3	3	2	3
VI. Infectious Diseases, ...	18	11	14	17	13
VII. Suffocation, ...	1	—	—	1	—
VIII. All other Causes, ...	12	10	9	12	8
All Causes, ...	146	123	117	134	99
FEMALES—					
I. Immaturity, ...	36	36	36	34	31
II. Diseases of Respiratory System,	24	21	16	29	16
III. Diseases of Digestive System,	19	14	15	9	8
IV. Diseases of Nervous System, ...	8	6	5	5	4
V. Tuberculous Diseases, ...	4	3	2	2	2
VI. Infectious Diseases, ...	18	11	12	16	12
VII. Suffocation, ...	1	—	—	1	—
VIII. All other Causes, ...	9	9	6	9	6
All Causes, ...	119	100	92	105	79

NOTIFICATION OF BIRTHS.

The number of notifications of births received during 1923 is shown in Appendix Table XV, compared with the corresponding figures for the two preceding years. As notifications include still births, the notifications are always in excess of the number of births registered. Omissions to notify births in terms of the Act average around 2½ per cent., but most of these are formally intimated after attention has been directed to the omission.

Nature of Attendance at Births.—The proportion of births medically attended has fallen from 48·6 per cent. in 1914 to 38·4 in 1922, while in 1923 the proportion was 39·4. This leaves a balance of 60·6 per cent. of births not medically attended.

Still Births.—The percentage of still births known to occur in Glasgow usually averages about 4. During 1923 it was 4·1, which was also the rate for the preceding year.

The percentage of still births occurring among those attended medically at home and in institutions is 5·7 for 1923, compared with 3·0 non-medically attended, but if those medically attended in institutions are excluded the former rate is reduced from 5·7 to 3·6. This larger percentage among medical cases is usually due to the fact that a doctor has been ultimately summoned in certain cases where a midwife was in the first instance employed. Among the births medically attended in institutions there were 340 still births, or 10·7 per cent. of the total.

MATERNITY AND CHILD WELFARE SCHEME.

No further extension of the Child Welfare Scheme was made during the year, although the question of providing a new day nursery and clinic on ground at Sister Street, in the East End of the City, was under consideration. The site of the present wooden hut is required by another department, and plans were prepared and submitted to the Board, but not finally approved before the end of the year.

Classes for cookery and sewing and social evenings for mothers were arranged at various Centres during the winter months, as shown below:—

Cowcaddens Centre,	Sewing Class for expectant Mothers.	Tuesday, 2 p.m.
	Cookery Class.	Monday, 7 p.m.
London Road Centre,	Sewing Class.	Tuesday, 2 p.m.
	Cookery Class.	Thurs., 7 p.m.
Partick Centre, -	Sewing Class conducted by members of Partick Branch of G.I.H.V.A.	Tues., 2.30 p.m.
Adelphi Street Centre,	Sewing Class conducted by members of Gorbals and Hutchesontown Branches of G.I.H.V.A.	Tues., 2.30 p.m
Weir Street Centre, -	Sewing Class.	Tuesday, 7 p.m.
Govan Child Welfare Centre.	Cookery Classes.	
	(*a*) For Mothers attending Elder Park Clinic, Fridays—Jan. 11th, Feb. 8th, March 7th	7 p.m
	(*b*) For Mothers attending Govan and Weir St. Clinic, Fridays—Jan. 25th, Feb., 22nd, March 21st.	7 p.m.
Elder Park Centre, -	General Class (including Cookery and Sewing).	Wed., 7 p.m.

INFANT CONSULTATIONS.

The following is a revised time-table of the Child Welfare Consultations:—

CHILD WELFARE CONSULTATIONS.

	10 A.M.	1.30 P.M.
MONDAY, ...	Adelphi Street, S.S.	Weir Street.
	Port Street (1-5).	Partick.
	Garngad.	Cowcaddens.
	London Road (1-5).	London Road.
TUESDAY, ...	Weir Street.	Govan (Ante-Natal).
	Cowcaddens (Ante-Natal).	Port Street.
	Garngad.	Ruchill.
	Shettleston.	Campbellfield Street.
WEDNESDAY,	Govan.	Govan.
	Ruchill.	Partick (1-5).
	Port Street.	Cowcaddens.
	London Road (1-5).	London Road.

	10 A.M.	1.30 P.M.
THURSDAY, ...	Weir Street. Partick. Cowcaddens (1-5). Shettleston.	Weir Street (1-5). Adelphi Street, S.S. Cowcaddens (1-5). London Road. Partick.
FRIDAY, ...	Adelphi Street, S.S. (1-5). Elderpark. Garngad. London Road.	Adelphi Street, S.S. (1-5). Elderpark. Cowcaddens. London Road (Ante-Natal).

Although the number of Centres remains the same, the total number of consultations held during the year was 1,881, compared with 1,467 during 1922. This increase is the result of a larger number of diets held weekly at the Centres in order to reduce the numbers dealt with at each session, and to reduce the time of each to about 2½ hours.

This increase in the number of separate consultations was to a certain extent required by the examination and certification of applicants for milk under the Child Welfare Scheme, and necessitated the appointment of an additional female clinical officer.

The total attendances, as shown in the table given below, numbered 113,528, in comparison with 72,188 for the preceding year. The total number of primary attendances was 11,208.

The following table shows the attendances at each consultation during the years 1922 and 1923.

ATTENDANCES AT INFANT CONSULTATIONS, 1923.

	No. of Consultations held.	Children − 1 Year. No. of Attendances.		Children + 1 Year. No. of Attendances.		Total No. of Attendances.		1922 Total No. of Attendances	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Adelphi Street,	202	962	5,928	568	4,108	1,530	10,036	1,278	5,555
Campbellfield St.,	51	265	1,853	22	684	287	2,537	354	1,902
Cowcaddens, -	248	1,044	8,035	349	5,339	1,393	13,374	1,603	9,758
Elderpark,	98	414	4,036	—	—	414	4,036	426	2,724
Garngadhill, -	145	346	2,609	213	3,658	559	6,267	568	3,085
Govan, - -	104	451	3,968	273	3,437	724	7,405	724	3,697
London Road, -	305	2,170	12,616	502	7,262	2,672	19,878	2,038	12,858
Maryhill, -	100	353	3,598	142	2,174	495	5772	458	2,603
Partick, -	176	584	4,828	287	3,317	871	8,145	905	5,587
Port Street, -	150	520	5,968	235	2,665	755	8,633	738	5,544
Shettleston. -	103	394	3,244	170	2,608	564	5,852	689	3,646
Weir Street, -	199	619	6,064	325	4,321	944	10,385	743	4,634
	1,881	8,122	62,747	3,086	39,573	11,208	102,320	10,559	61,629
		70,869		42,659		113,528		72,188	

The illnesses, &c., recorded at the consultations are here summarised:—

INFANT CONSULTATIONS.—ILLNESSES, &C., RECORDED.

	1922		1923	
	−1 Year	+1 Year	−1 Year	+1 Year
Debility, ...	—	—	19	6
Birth Debility.	13	2	29	—
Prematurity, ...	29	—	35	—
Marasmus, ...	38	3	29	—
Anæmia, ...	7	3	3	24
Underweight, ...	5	—	53	12
Digestive Disorders—				
Malnutrition, ...	488	154	516	250
Diarrhœa, ...	2	4	7	4
Enteritis, ...	—	—	—	2
Gastritis, ...	3	—	1	1
Respiratory Diseases—				
Bronchitis, ...	29	45	5	22
Pneumonia, ...	18	13	—	8
Bronchial Catarrh, ...	5	15	7	4
Tuberculosis, ...	—	1	—	1
Syphilis, ...	12	2	6	—
Measles, ...	2	2	—	6
Post Measles, ...	—	—	1	4
Whooping-Cough, ...	8	25	—	2
Rickets, ...	19	94	15	108
Impetigo, ...	—	1	—	1
Eczema, ...	1	—	—	—
Ophthalmia, ...	1	—	1	—
Others, ...	8	8	26	7
TOTAL, ...	688	372	753	462

Towards the end of the year inquiry was made by the Board of Health as to the condition of infants and children attending the Child Welfare Centres, and the following notes summarise the opinion expressed by the doctors and nurses:—

The general impression among Child Welfare doctors and nurses is that there is no appreciable change in the condition of infants seen at consultations and in homes visited.

While babies are, on the whole, good, the nutrition of children over 1 year is poor—this has always been common among the children attending our consultations, and appears to be not much worse than formerly. Now more children between the ages of 1 and 5 years are seen at Centres, as there are several consultations for that age period.

The clothing of children attending consultations varies considerably—it is better in those districts where voluntary associations are supplying garments. Where the clothing is entirely provided by the mothers, it is commonly of very poor quality (no good woollen garment), and the tendency always is to overclothe in quantity.

All are agreed that there is marked ill-health among mothers, more than in former years. This is more noticed in the better districts, where the mothers appear to suffer much more than the "toddlers"; in the poorest districts the "toddlers" apparently suffer as much as, if not more than, the mothers.

There is, further, a greater dread of pregnancy than before, and breast-feeding is prolonged.

The clothing of mothers is bad. Many are very scantily clad, and it is well known that several cannot attend consultations because they have pawned their shawls.

While it is still believed by midwives and others that recovery of the mother after confinement is prolonged, the Maternity Hospital Superintendent states that no difference has been noted in hospital in the time of immediate recovery, *i.e.*, mothers are still dismissed ten days after delivery.

The Physician-Superintendents at Belvidere and Ruchill Hospitals say that children admitted to hospital are very dirty and verminous. In admissions, other than measles, physique is apparently not below the average, but at present children being admitted with measles and its complications are, in the opinion of the Superintendents, worse than formerly. (Cases of measles admitted to hospital are usually from poorest districts only.)

The Superintendent of the Sick Children's Hospital states that there appears to be no difference in physique of children admitted, but at present more cases of gastro-enteritis are being treated than is usual at this season.

On inquiry at the Maternity Hospital as to the average weight of babies born recently as compared with previous years, the following record was obtained :—

	Lbs.	Ozs.
November, 1921, ...	7	1
" 1922, ...	7	4
" 1923, ...	7	6

Clothing.—There is considerable need for clothing, both for children in attendance at the Child Welfare Centre and for maternity cases, and this has hitherto been met by the provision of a stock of garments given by persons interested in Child Welfare work, and committees (usually of church workers), while funds have also been collected for the purpose by the Superintendents at the various Centres. The following are the conditions under which clothing is given :—

(1) Cases recommended by midwives;

(2) Cases recommended from Infant Welfare Centres;

(3) Some cases sent by the Parish, who made application there but have been found ineligible;

(4) Some similar cases sent from the United Service Fund. This is now ending; and

(5) A large number from the Child Welfare Nurses' visiting lists.

Among this group the standard of selection varies considerably, but the impression is that the persons recommended by the reputable midwives are selected on a satisfactory basis.

In Govan a slightly different custom prevails. The Ladies' Voluntary Committee (Eastern Branch) relieve no one save those who come through the Welfare Centre, and a charge of 9s. or 10s. per bundle is made.

ANTE-NATAL CONSULTATIONS.

Glasgow Royal Maternity Hospital. — The total number of cases attending the dispensary for the first time increased from 2,126 during 1920 to 2,786 in 1923, while the total attendances during the past three years were 6,034, 5,954, and 7,749. During 1923, 1,583 cases were treated to a termination in delivery, of which 504 were attended in their own homes. Of this total 113 were miscarriages.

The number admitted to the ante-natal wards during 1923 was 606, compared with 632 in 1922. At the infant consultations held at the Maternity Hospital there were 5,766 attendances, as compared with 5,265 during the previous year. The first attendances numbered 1,096.

	1921	1922	1923
ANTE-NATAL DISPENSARY—			
Number attending for first time, ...	2,545	2.629	2,786
Total attendances, ...	6,034	5,954	7,749
Number treated to a termination in delivery, ...	1,112	1,396	1,583
Number sent to Hospital from Dispensary—			
(*a*) For confinement, ...	779	867	961
(*b*) ,, treatment, ...	188	223	275
(*c*) ,, miscarriage, ...	58	63	98
ANTE-NATAL WARDS—			
Average number under treatment, ...	17	17	21
Number admitted, ...	657	632	606
Total days, ...	6,194	6,382	6,809
Condition on dismissal :—			
(1) Recovered, ...	144	128	105
(2) Improved, ...	129	135	179
(3) Confinement completed, ...	283	314	277
(4) Died, ...	3	5	—
(5) No change, ...	80	47	47

	1921	1922	1923
INFANT CONSULTATION—			
First Attendances, ...	984	1,143	1,096
Subsequent Attendances, ...	3,536	4,122	4,670
Total, ...	4,520	5,265	5,766

In addition to the above, ante-natal consultations have been arranged at three of the centres, and the following table summarises the number of attendances during 1923, together with conditions found on medical examination. One diet is held weekly at Bridgeton and Govan, and two at Cowcaddens:—

	Ante-natal Clinics.			
	Bridgeton	Govan	Cowcaddens	All Conditions (Cowcaddens only).
First Attendances—				
First pregnancy, ...	27	148	28	
Other pregnancies, ...	305	280	264	
Subsequent Attendances, ...	1,068	526	680	
Not pregnant.	8	15	18	
	1,408	969	990	
Period at which attended—				
– 3 months, ...	16	60	48	
– 6 ,, ...	101	178	134	
– 9 ,, ...	200	190	110	
– Not stated, ...	15	—	—	
	332	428	292	
Principal Conditions found—				
No abnormal condition, ...	173	212	16	16
Contracted Pelvis, ...	5	17	26	26
Albuminuria, ...	9	18	9	54
Anæmia, ...	22	49	—	111
General Debility, ...	52	14	42	108
Constipation, ...	23	46	26	186
Dental Sepsis, ...	*	29	61	233
Varicose Veins, ...	29	16	49	60
Cardiac Disorder, ...	15	2	19	52
Venereal Disease, ...	4	5	17	17
Respiratory ,, ...	—	20	23	56
Others, ...	—	—	4	
	332	428	292	

* All bad except 23.

	Bridgeton	Govan	Cowcaddens
Live Births—full time, ...	303	415	260
Do. premature, ...	—	3	8
Still Births—full time, ...	4	6	3
Do. premature, ...	2	4	3
Not terminated, ...	3	—	18
Not traced, ...	20	—	—
	332	428	292

The total number of attendances made during the year was 3,367. The number of expectant mothers examined was 1,052, who made 2,274 additional attendances. Other 41 women who attended were found not to be pregnant. About half the total number of mothers attended before the sixth month.

The most frequent causes of illness, apart from dental sepsis, were general debility, anæmia, constipation, and varicose veins. Many, however, were affected with other concurrent conditions, so that the figures given for the principal conditions found do not indicate the total need for medical advice. This is indicated in the last column, under the heading, "Cowcaddens Clinic," where all the multiple conditions among the 292 women are included.

Among the 1,011 cases followed to a termination, there were 22 still-births, which is equal to a rate of 2 per cent., compared with the average for the City generally of 4 per cent.

INFANT VISITATION.

Under the scheme of infant visitation every birth is visited if the notification does not state that a medical practitioner has been in attendance, and the following table shows the record of those visited, together with certain information obtained:—

	1921	1922	1923
Enquiry cards returned, ...	21,585	21,301	19,910
Full information obtained, ...	20.036	19,952	18,465
Doctor found in attendance,	116	105	66
Duplicates, ...	—	—	—
Wrong addresses, ...	2	—	6
Others, ...	1,431	1,244	1,373
Enquiry cards issued, ...	21,905	21,205	20,156
Of those for whom full information was obtained—			
Legitimate, ...	18,987	18,662	17,705
Illegitimate, ...	1,391	1,207	1,008
Born at full term, ...	19,370	18,876	17,839
Premature births, ...	1,008	993	874

Condition of Infant at Birth—	1921	1922	1923
Well nourished, ...	17,525	17,061	15,911
Fairly nourished, ...	1,266	1,183	1,247
Badly nourished, ...	846	780	768
Still-born, ...	741	845	787
Nature of Feeding at First Visit—			
Breast, ...	16,963	16,614	15,476
Artificial, ...	1,309	1,118	1,274
Breast and Artificial, ...	591	601	567
Others—			
Still born, ...	741	845	787
Dead at First Visit, ...	765	682	604
Adopted, ...	9	9	5

In addition to home visitation, the nurses attend the Child Welfare Consultations in their own districts. They thus have an opportunity of reporting to the doctor any illness or condition requiring medical treatment, and of following up the case afterwards to see that the treatment recommended is carried out.

The following series of summaries indicate the number of first and revisits overtaken, together with a record of conditions fonnd :—

First Visits.

	1921	1922	1923
Infants visited under 1 year of age,	18,484	18,339	16,777
Infants visited over 1 year of age,	—	—	—
	18,484	18,339	16,777
Removed and new address not traced,	500	528	380
Not found at address given, ...	—	—	—
Out at time of visit, ...	32	—	3
In hospital or nursery, ...	104	107	93
Dead, ...	828	733	637
Refused admittance, ...	26	21	12
Doctor in attendance, ...	113	92	39
Information refused, ...	66	24	26
Still-born, ...	783	789	761
Visits unnecessary, ...	595	575	632
Visits resented, ...	—	—	—
Adopted, ...	45	34	53
Nursed out, ...	2	10	6
	21,578	21,252	19,419

REVISITS.

	1921	1922	1923
Infants visited under 1 year of age,	2,664	1,998	1,548
Infants visited over 1 year of age,	1,702	1,238	1.917
	4,366	3,236	3,465
Removed and new address not traced,	692	573	652
Out at time of visit, ...	83	83	125
In hospital or nursery, ...	26	29	23
Dead, ...	530	515	398
Adopted, ...	14	12	32
Refused admittance, ...	2	4	4
Doctor in attendance, ...	2	2	3
Visits to mothers, ...	—	—	—
Unable to gain admission, ...	—	—	—
Visits unnecessary, ...	4	1	1
Visits resented, ...	—	—	—
Nursed out, ...	1	1	4
Information refused, ...	1	4	—
	5721	4,460	4,707

The children found alive on the occasion of the first visit by the Health Visitor are classified in the following table under three groups:—

	Well	Fair	Bad	Total
1921, ...	17,144	1,193	147	18,484
1922, ...	16,902	1,352	85	18,339
1923, ...	14,900	1,753	124	16,777

Generally speaking, those classified as "well" on the occasion of the first visit were not revisited. The following table is a summary of results found at final visit:—

REVISITS.

	Still Good	Much Improved	Slightly Improved	No Improvement	Worse	Total
1921, ...	3,153	1,182	22	9	—	4,366
1922, ...	2,394	827	11	4	—	3,236
1923, ...	2,540	841	43	41	—	3,465

GLASGOW INFANT HEALTH VISITORS' ASSOCIATION.

Working in association with the Public Health Department is the Glasgow Infant Health Visitors' Association, to whom are reported children whom it is desirable to keep under observation during a longer period than is possible by the official visitors. The number of visitors fluctuates around 300.

As the period of visitation generally extends over the first twelve months of life, a complete year must elapse before the results of the visitation can be summarised.

The following is a summary of the results for the years 1920-1922: —

Year	Year old	Removed	Dead	Ceased to be Visited	Visits Unnecessary	No Information	Visits Resented	No Visitor	Total
1920	1,315	168	132	151	30	3	3	4	1,806
1921	1,555	182	249	56	55	6	3	5	2,111
1922	1,560	231	129	15	53	2	5	5	2,000

The feeding of the infants is indicated in the following table: —

	1920	1921	1922
Year old—			
Breast only, ...	381	448	572
Breast and Artificial Food,	456	531	464
Artificial Food only, ...	478	576	524
Removed—			
Breast only, ...	88	93	127
Breast and Artificial Food,	25	22	25
Artificial Food only, ...	20	14	30
No Information, ...	35	53	49
Dead—			
Breast only, ...	63	92	51
Breast and Artificial Food,	15	59	22
Artificial Food only, ...	26	41	28
No Information, ...	28	57	28
Ceased to be visited—			
Breast only, ...	102	36	11
Breast and Artificial Food,	23	11	4
Artificial Food only, ...	26	9	—
Visits unnecessary—			
Breast only, ...	25	39	42
Breast and Artificial Food,	2	11	5
Artificial Food only, ...	1	3	5
No Information, ...	2	2	1
No Information, ...	3	6	2
Visits resented—			
Breast only, ...	2	3	4
Breast and Artificial Food,	—	—	1
Artificial Food only, ...	—	—	—
No Information, ...	1	—	—
No Visitors, ...	4	5	5
	1,806	2,111	2,000

DAY NURSERIES.

During the year the question of providing Day Nursery and Clinic accommodation in the East and North of the City was again under consideration. Although a suitable site in Tollcross district was approved, the matter is still in abeyance, principally because of the proposal to add Maternity Home accommodation to meet the needs of cases in that district, which is so far removed from the Royal Maternity Hospital, in the centre of the City.

It has been agreed to purchase, in Springburn, a piece of ground in Cowlairs district, and plans of the accommodation to be provided are in course of preparation. In the case of Maryhill, where a nursery was closed immediately before the war as unsuitable, a site convenient to the district has now been obtained.

The Day Nursery in Partick was closed on 25th September, mainly owing to the small demand for the accommodation in that district. The accommodation was not very suitable for the purpose, consisting as it did of two small dwelling-houses on a first flat, converted for the purpose.

The following figures show the number of attendances, &c., during the year:—

Nursery	No. of days open	Total Attendances during the year	Average	Maximum number in one day
London Road, ...	210	7,431	35	41
Cowcaddens, ...	247	6,211	25	34
Phœnix Park Kindergarten,	169	3,996	24	30
Milton, ...	241	7,182	30	41
*Partick, ...	195	460	2	9
Hutchesontown, ...	254	6,151 ...	24	33
Weir Street, ...	222	4,380	20	28

*Closed on 25th September, 1923.

The Binet-Simon test of intelligence was applied to a number of children (38) in regular attendance at the Phœnix Park Kindergarten, with the following results:—

		Binet-Simon Intelligence quotient
8 per cent.	Very superior intelligence,	120-140
8 do.	Superior do.	110-120
58 do.	Normal or average do.	90-110
13 do.	Dull do.	80-90
13 do.	Border line between deficiency and feeble-mindedness, ...	70-80

COUNTRY HOMES.

No change has taken place with regard to the Country Homes, although the question of additional accommodation has been under consideration by the Committee during the year.

Mount Vernon Home is an old country mansion-house converted, and it would not be advisable to incur expenditure on its reconstruction, so that the question of providing additional accommodation at Mount Blow House has again been raised. The suggestion is to add two or three annexes in convenient proximity to the house, the accommodation in which might be utilised wholly for the staff and culinary arrangements, &c. The matter, however, has not been finally decided.

The number of admissions to the Country Homes and the reasons therefor are given in the following statement, from which it will be seen that more than 50 per cent. of the 297 admissions are young children affected with rickets, and 15 per cent. because of general malnutrition:—

	Mount Vernon		Scotstoun		Mount Blow		Total
		Readmissions		Readmissions		Readmissions	
Rickets, ...	54	1	57	—	46	—	158
General Malnutrition, ...	3	—	39	1	11	—	54
Bronchitis, ...	6	1	1	—	6	—	14
Paresis, ...	—	—	1	—	—	—	1
Debility after acute illnesses,	26	1	9	—	8	1	45
Anæmia, ...	7	—	3	—	6	—	16
Nervousness, ...	3	—	—	—	1	—	4
Healthy, but mother about to be confined, ...	2	—	—	—	—	—	2
Healthy, but mother admitted to Hospital, ...	2	—	1	—	—	—	3
	103	3	111	1	78	1	297
	106		112		79		

The dismissals during the year were 89 from Mount Vernon, 94 from Scotstoun, and 79 from Mount Blow. The condition on dismissal is summarised in the following statement:—

	Mount Vernon	Scotstoun	Mount Blow	Total
Much improved, ...	73	64	56	193
Not improved, ...	1	3	1	5
Parents leaving city, ...	1	5	1	7
Transferred suffering from infectious disease, ...	10	2	4	16
Taken home by parents (fretting, &c.), ...	4	18	14	36
Died, ...	—	—	—	—
For admission to other Institutions, ...	—	2	—	2
Sent home—Ringworm (?),	—	—	3	3
	89	94	79	262

Difficulty was also experienced with the occurrence of infectious disease among the children admitted, despite special inquiry as to exposure to infection, especially of measles and whooping-cough, at the addresses from which the children were admitted. All are medically examined before admission, and kept under medical supervision while in the Home, but at the moment there is no accommodation available for isolation for a period before admission to the Homes.

SUPPLY OF MILK AND MEALS TO NECESSITOUS MOTHERS AND CHILDREN.

Supplies of milk continued to be given during the year to expectant and nursing mothers, and to children up to five years of age, under the following general conditions, viz.:—

(1) Regular attendance at a Child Welfare Centre;

(2) When the case was necessitous; and

(3) When a supply of milk was certified by the Medical Officer of the Centre to be necessarily required on grounds of health.

The supply of meals, which had been suspended since June, 1922, was resumed on 6th January, 1923, grants being made under the same conditions as were being applied in connection with applications for supplies of milk.

While compliance with the above general conditions is required, exception is made where a mother or child on first attendance at an Infant Consultation presents conditions of health which suggest that an immediate grant of either milk or meals is desirable or necessary.

FRESH MILK.

The following table shows the number of applications for milk granted during the year:—

ORIGINAL APPLICATIONS.

Rate per Pint charged to Applicant	Number of Families	Number of Expectant and Nursing Mothers	Number of Children under 5 years	Total Number of Pints ordered
Half-Price, ...	139	63	104	4,676
Free, ...	4,576	2,068	3,145	145,964
	4,715	2,131	3,249	150,640
REPEAT APPLICATIONS.				
Half-Price, ...	505	159	592	21,028
Free, ...	24,733	9,029	25,358	962,836
	25,238	9,188	25,950	983,864
TOTALS.				
Half-Price, ...	644	222	696	25,704
Free, ...	29,309	11,097	28,503	1,108,800
	29,953	11,319	29,199	1,134,504

This table shows that 4,715 original applications were made during the year for supplies of fresh milk, covering 2,131 expectant or nursing mothers, and 3,249 children under five years of age, or, together, 5,380 individuals. Repeat applications to the number of 25,238 were received, which is equivalent to 5·35 repeats per original application. As each supply is ordinarily given for a period of 28 days, it follows that each family was in receipt of a supply of milk averaging approximately 178 days throughout the year. The total quantity of milk ordered was 1,134,504 pints, and the cost £10,500.

Certificates for grants of fresh milk were given by the Medical Officers of the various centres, for the following reasons:—

SUMMARY OF MEDICAL CERTIFICATIONS ON APPLICATION FOR FRESH MILK.

Diseases	Mothers		Children		Total
	Expectant	Nursing	- 1 year	-5 years	
Debility, ...	2,244	4,081	630	3,440	10,395
Progressing, ...	175	952	3,711	8,199	13,037
Inanition, ...	—	—	1	14	15
Insufficiency of Breast Milk,	—	3,214	967	48	4,229
Child losing Weight, ...	—	12	282	1,102	1,396
Under ,, ...	—	24	1,601	5,484	7.109
Child Weight stationary, ...	—	3	231	895	1,129
Malnutrition, ...	12	13	125	557	707
Marasmus, ...	—	—	7	1	8
Infectious Diseases (Debility following)—					
Chickenpox, ...	—	—	11	31	42
Diphtheria, ...	—	—	—	1	1
Influenza, ...	—	—	—	2	2
Measles, ...	1	—	12	74	87
Mumps, ...	—	—	1	1	2
Tuberculosis, ...	1	—	—	6	7
Venereal Disease, ...	1	—	—	—	1
Whooping Cough, ...	1	—	94	348	443
General Diseases—					
Anæmia, ...	315	265	14	262	856
Rheumatism, ...	2	—	—	—	2
Rickets, ...	—	4	66	715	785
Diseases of Circulatory System and Lymphatic Glands—					
Cardiac Disease, ...	1	—	—	3	4
Phlebitis, ...	—	1	1	—	2
Varicose Vein, ...	7	1	—	2	10
Adenitis, ...	—	—	1	10	11
Enlarged Glands, ...	—	—	—	3	3
Diseases of Nervous System and Organs of Special Sense—					
Convulsions, ...	—	—	1	3	4
Epilepsy, ...	—	—	—	2	2
Infantile Paralysis, ...	—	—	3	11	14
Meningitis, ...	—	—	—	1	1
Neuritis, ...	1	—	—	—	1
Blepharitis, ...	—	—	1	7	8
Conjunctivitis, ...	—	—	—	8	8
Ophthalmia, ...	—	—	2	4	6
Otitis, ...	—	—	—	7	7
Otorrhœa, ...	—	—	—	8	8
Tetany, ...	—	—	3	7	10
Diseases of Respiratory System—					
Bronchitis, ...	45	4	75	346	470
Pneumonia, ...	—	—	3	15	18
Pleurisy, ...	1	—	—	—	1
Diseases of Digestive System and Intestines—					
Dyspepsia, ...	72	1	—	1	74
Gastritis, ...	11	1	4	55	71
Gastro-Enteritis, ...	1	1	6	81	89
Peritonitis, ...	—	—	—	2	2
Rectal Prolapse, ...	—	—	—	1	1
Threadworm, ...	—	—	—	1	1
Oral Sepsis, ...	—	—	1	3	4
Tonsilitis, ...	—	1	—	11	12
All other Causes, ...	20	2	10	32	64
Totals, ...	2,911	8,580	7,864	21,804	41,159

DRIED MILK.

During the year supplies of dried milk were also given in suitable cases, the brands in use being "Glaxo," "Cow and Gate," and "Dorsella," the number of applications received being as follows:—

	Number of Families	Number of Expectant and Nursing Mothers	Number of Children under five years	Number of Packets Ordered
Original Applications,	1,058	71	998	1,200
Repeat ,,	15,234	425	15,296	20,898
Total, ...	16,292	496	16,294	22,098

While the same scale of "necessitousness" is applied to applications for dried milk as to applications for fresh milk, the conditions of grant are somewhat different, for, while grants of fresh milk are refused to families whose income is over the scale, grants of dried milk may be made at the wholesale rate. The following summary shows the number of packets and the amount recovered, as well as the loss falling upon the Corporation, for the supplies of dried milk issued under these conditions:—

Price per Packet	Number of Packets Issued	Cost to Corporation	Amount Recovered	Gain or Loss to Corporation
Full Price—				
1s. 6d. to 1s. 9d.,	13,877	£1,044 15 0	£1,125 19 6	+ £81 4 6
Part Price—				
1s. to 1s. 6d.. -	391	30 8 3	25 6 0	- 5 2 3
Free, - -	7,830	550 1 3	—	- 550 1 3
	22,098	£1,625 4 6	£1,151 5 6	£473 19 0

In all, 22,098 packets were distributed under the scheme, of which 13,877 were charged at full price, 391 were issued at part price, and 7,830 were given free, the net loss to the Corporation being £473 19s.

The reasons given in the medical certificate forms are shown in the following summary:—

SUMMARY OF MEDICAL CERTIFICATIONS ON APPLICATIONS FOR DRIED MILK.

	Mothers		Children		
Diseases	Expectant	Nursing	-1 Year	-5 Years	Total
Debility, ...	3	17	124	34	178
Gaining, ...	—	6	1,046	83	1,135
Inanition, ...	—	—	1	—	1
Insufficiency of Breast Milk,	—	22	122	1	145
Losing Weight, ...	—	—	55	4	59
Under Weight, ...	—	—	322	34	356
Weight Stationary, ...	—	—	54	4	58
Malnutrition, ...	—	—	29	1	30
Marasmus, ...	—	—	8	—	8
Infectious Diseases—					
Measles, ...	—	—	3	—	3
Whooping-Cough, ...	—	—	22	1	23
General Diseases—					
Anæmia, ...	—	1	3	—	4
Rickets, ...	—	—	3	—	3
Disease of Circulatory System—					
Cardiac Disease, ...	—	—	1	—	1
Diseases of Respiratory System—					
Bronchitis, ...	—	—	9	1	10
Pneumonia, ...	—	—	1	1	2
Disease of Digestive System—					
Gastro-Enteritis, ...	—	—	20	9	29
Totals, ...	3	46	1,823	173	2,045

ECONOMIC CONDITIONS.

The following summary shows the conditions under which applications came within the scale of allowances:—

Applications Refused—		
Income over scale,	330	
Insufficient information,	1	
Refused to pay half-price,	4	
		335
Applications granted at half-price,		965
Applications granted free—		
On Unemployed Relief Scale,	33,909	
Illegitimacy,	387	
Employed full-time, but under Scale.	1,549	
Parish Relief only,	10	
Waiting L.B. and Parish,	479	
Employed part-time,	1,344	
Pension only,	28	
Bureau only,	1,162	
Deserted Wife,	227	
Health Insurance,	824	
Compensation,	95	
Labour Bureau and Pension,	1,104	
Labour Bureau (money finished),	3	
Just started work (14 days),	8	
Labour Bureau and room let,	311	
Labour Bureau and Society,	55	
Refused In-door Relief (no income),	2	
Waiting Compensation,	2	
Army Allowance,	2	
Allowance from son,	1	
		41,502
		42,802

SUPPLY OF MEALS.

As already indicated, the supply of meals was resumed at the beginning of the year, and arrangements were made with the Education Authority to supply, through their Feeding Centres, such meals as might be recommended for mothers and children. The following table gives the numbers supplied during the year from each of these Centres:—

Centre	(3-5 Years Children)	Infants (9 Months-3 Years)	Expectant and Nursing Mothers	Total
St. George's Road School, ...	776	1,078	2,374	4,228
Hayfield School, ...	3,424	6,155	10,428	20,007
Kinning Park School, ...	2,082	3,279	5,980	11,341
Dalmarnock School, ...	188	210	556	954
Broomloan School, ...	1,714	3,402	5,837	10,953
Bishop Street School, ...	823	2,287	4,096	7,206
Campbellfield School, ...	266	355	200	821
Dobbie's Loan School, ...	2,624	4,553	6,709	13,886
Townhead School, ...	196	251	896	1,343
Rosemount School, ...	3,188	4,994	5,703	13,885
Wellfield School, ...	137	134	355	626
Dovehill School, ...	76	211	283	570
Rumford School, ...	370	320	659	1,349
Keppochhill School, ...	583	1,007	1,561	3,151
Eastpark School, ...	673	1,611	1,924	4,208
Strathclyde School, ...	91	—	48	139
Parkhead School, ...	179	183	—	362
Whiteinch School, ...	314	583	910	1,806
	17,704	30,612	48,519	96,835

The charge by the Education Authority is 3½d. per meal, and the total cost for the year worked out at £1,295.

OPHTHALMIA NEONATORUM.

During the year 1923, 620 cases of ophthalmia neonatorum were notified, compared with 765 cases in the previous year, and 926 in 1921. The case-rate per thousand births is equal to 22·1, as compared with 27·1 for the preceding year, and 30·9 during 1921. These rates must not be regarded as indicating the proportion of cases due to gonococcus. A circular was issued by the Scottish Board of Health in August, 1921, instructing midwives to apply a 1 per cent. solution of silver nitrate to the eyes of all newly-born children, and this would appear to have had the effect of directing greater attention to slight inflammations, with discharge, which in former years were not brought to the notice of the department.

OPHTHALMIA NEONATORUM CASES AND CASE-RATES PER 1,000 BIRTHS.

NOTIFIED BY	CASES.			RATES.*		
Year	1921	1922	1923	1921	1922	1923
Doctors, ...	97	46	42	10·8	5·7	5·3
Institutions, ...	60	64	67	22·6	23·9	21·2
Inst. Nurses, ...	198	162	109	52·4	38·8	25·9
Midwives, &c., ...	566	489	400	39·0	36·7	31·4
Regd. by P.H.D. Staff, ...	921	761	618	—	—	—
Doctor in Attendance, ...	1	3	—	—	—	—
Treated in other than Local Authority Hospital, ...	2	1	—	—	—	—
Treatment refused, ...	—	—	1	—	—	—
Removed, ...	1	—	—	—	—	—
Dead, ...	—	—	1	—	—	—
No information, ...	1	—	—	—	—	—
Total cases of Ophthalmia Neonatorum, ...	926	765	620	30·9	27·1	22·1
Not Ophth. Neon., but notified as such, ...	2	1	1	—	—	—
Notifications received, ...	928	766	621	31·0	27·1	22·2

* Calculated on Live Births notified, less duplicates.

N.B.—"Doctors found in attendance" are included in "Doctor in attendance," and deducted from "Midwives," &c.

Period at which symptoms appear:—

Cases occurring at Age—	1921	1922	1923
– 12 hours, ...	102	104	66
– 4 days, ...	428	308	215
– 8 ,, ...	257	219	226
+ 8 ,, ...	134	130	111
	921	761	618

Association with Syphilis.—Swabs of the discharge from eyes are taken in most cases, and the association of the disease with syphilis observed, as shown in the following table:—

	GONOCOCCAL.			NON-GONOCOCCAL.			UNCLASSIFIED.			TOTAL		
	Total Cases	Syphilis present	Per Cent. with Syphilis	Total Cases	Syphilis present	Per Cent. with Syphilis	Total Cases	Syphilis present	Per Cent. with Syphilis	Total Cases	Syphilis present	Per Cent. with Syphilis
1921,	143	2	1·4	473	2	·4	305	2	·6	921	6	·7
1922,	99	1	1·0	413	—	—	249	1	·4	761	2	·2
1923,	58	2	3·0	333	—	—	227	—	—	618	2	·3

Of the 618 cases, 391 (most of which were not medically attended) were examined for the presence of gonococcus, and of these 58 were reported positive, which is equal to 15 per cent., as compared with almost 19 per cent. during 1922. Of the gonococcal cases only 2 were associated with syphilis, equivalent to 3 per cent. Of the non-gonococcal cases none were found syphilitic.

Cases are included in the syphilitic group when—

(1) There are definite clinical symptoms, such as rash or puckering of skin about orifices, snuffles, &c., even when child gives a negative Wassermann reaction.

(2) The baby is marasmic and the mother has a positive Wassermann, even although the child is negative in this respect.

RESULTS OF TREATMENT.

Gonococcal Cases.—Of the 58 cases, complete recovery occurred in 46 cases; in 6 cases, where one eye only was affected, good sight was preserved in 4, fair vision in 1, and in 1 the sight was lost.

The history of the last-mentioned case was as follows:—The child was three weeks old when admitted to Baird Street. Notification of ophthalmia neonatorum was received in the sixth day from the doctor who had been in attendance at birth. He treated the eyes regularly from onset, and had the advice of an ophthalmic consultant. In spite of the treatment the eyes became so bad that two weeks after notification the doctor asked that the child be removed to Baird Street. On admission both corneæ showed large, deep ulcers, already perforated.

Non-Gonococcal Cases.—In the non-gonococcal cases all who came under treatment recovered, but 2 removed and could not be traced, while 4 died from intercurrent diseases.

Result.	1921		1922		1923	
	No Syphilis	Syphilis Present	No Syphilis	Syphilis Present	No Syphilis	Syphilis Present
Gonococcal.						
No Corneal Scar, ...	109	—	92	1	45	1
Corneal Scar remaining						
In one eye—						
Sight not impaired,...	11	—	3	—	4	—
,, impaired, ...	2	—	—	—	1	—
Blind, ...	6	1	—	—	—	—
In both eyes—						
Sight not impaired,...	4	—	1	—	—	—
,, impaired, ...	1	—	—	—	—	—
Blind, ...	—	—	—	—	1	—
One eye good and one eye blind, ...	—	—	—	—	1	—
Removed, ...	1	—	2	—	3	—
Died, ...	7	1	—	—	1	1
	141	2	98	1	56	2
Non-Gonococcal.						
No Corneal Scar, ...	450	2	392	—	326	—
Corneal Scar remaining						
In one eye—						
Sight not impaired,...	2	—	3	—	1	—
,, impaired, ...	—	—	—	—	—	—
Blind, ...	1	—	—	—	—	—
In both eyes—						
Sight not impaired,...	1	—	—	—	—	—
,, impaired, ...	—	—	—	—	—	—
Blind, ...	—	—	—	—	—	—
Removed, ...	8	—	4	—	2	—
Died, ...	8	—	14	—	4	—
Refused treatment, ...	1	—	—	—	—	—
	471	2	413	—	333	—
Unclassified.						
Cured, ...	303	1	248	—	227	—
Removed, ...	—	—	—	—	—	—
Died, ...	—	1	—	1	—	—
	303	2	248	1	227	—
Total, ...	915	6	759	2	616	2

The general result shows that improvement has taken place since the application of silver nitrate solution to the eyes of newly-born children was introduced in September, 1921 (made compulsory under Rules of C.M.B., January 1922). The number of cases occurring shows reduction, there being only 22 per 1,000 births in 1923, compared with 27 during the preceding year, and the proportion of severe cases is smaller.

Treatment of Mothers. — The former practice of offering treatment to mothers has been continued.

MIDWIVES (SCOTLAND) ACT, 1915.

The present is the seventh year of the operation of this Act, and the summaries which follow indicate the work done in its administration during the year 1923.

During the year 333 midwives intimated their intention to practise; 29 of these notified for the first time, 25 of whom were entitled to registration by examination, while 3 had been in practice in 1914 (these 3 were County midwives, who only attend an odd case in the Glasgow area).

The investigation of complaints resulted in 6 midwives being reported to the Board, 4 of whom were struck off the roll; the other 2 still await the Board's decision.

Four midwives died, 11 have gone abroad, 8 have moved outside Glasgow area.

This year no uncertified women have been prosecuted, though a few have been warned against continuing practice, including 1 handywoman previously convicted and 1 midwife who had been struck off the roll earlier in the year.

In the case of the one mother, who died before a registered medical practitioner was in attendance, the death was certified as "Cardiac syncope after confinement."

About 40 cases were attended by neither doctor nor midwife. In this number are included the foundlings found dead by the police (8 in number), and some who were attended by handywoman or near relatives or friends.

The introduction into the rules of the Central Midwives Board of a test for urine has not proved workable, in view of the very large number of *bona-fide* midwives still in practice, and of the very large amount of work expected of a trained midwife for a meagre remuneration. Testing urine on one occasion only is of little value, especially when a negative result has been obtained, and there is no possibility of payment from the patient that would cover, say, a weekly or even a fortnightly test from the seventh month till confinement. Doctors (who have greater knowledge and therefore greater responsibility) working amongst the same class do not, on the whole, take this precaution.

Growing numbers of patients attend our ante-natal dispensaries, but there is still a very large number who will not go to a place of this sort.

The following tables summarise the numbers for the year, with relative figures for the two preceding years:—

	1921	1922	1923
Midwives in Practice during year, ...	364	348	333
THE QUALIFICATIONS FOR CERTIFICATION UNDER ACT, HELD BY THE FOREGOING WERE—			
In Practice, December, 1914, ...	205	185	170
C.M.B. (Scotland) Examination, ...	107	111	111
Other recognised qualifications, ...	52	52	52

In the following table some indication is afforded of the number of births attended during the year by individual midwives. It would seem that of the 12,741 births attended by midwives 9,678 occurred in the practice of midwives with 50 confinements or more in the year:—

BIRTHS NOTIFIED BY MIDWIVES.

	Births Notified		1923	
	1921	1922	Births	Midwives
Under 50 Notifications, ...	3,213	3,206	3,063	207
50-100 „ ...	3,524	3,671	3,432	48
100-200 „ ...	4,622	3,908	4,223	29
200-300 „ ...	2,772	2,797	1,688	7
300-400 „ ...	642	—	335	1
400-500 „ ...	439	400	—	—
Over 500 „ ...	—	—	—	—
			12,741	292

STILL-BIRTHS NOTIFIED BY MIDWIVES.

	Midwives			Still-Births notified		
Notifications	1921	1922	1923	1921	1922	1923
1-5, ...	138	129	114	282	251	236
6-10, ...	12	17	14	89	126	95
11-15, ...	3	2	1	40	28	12
Over 15, ...	—	—	—	—	—	—
	153	148	129	411	405	343
Percentage of Births attended, ...				2·7	2·9	2·7

The figures in the two following summaries contain records of ophthalmia occurring in the practice of midwives, so that the numbers are not the same as the actual cases referred to in other sections of this Report:—

CASES OF OPHTHALMIA NEONATORUM OCCURRING IN PRACTICE OF MIDWIVES.

		Midwives			Cases notified	
Notifications	1921	1922	1923	1921	1922	1923
1-5, ...	129	122	112	278	254	239
6-10, ...	20	23	12	147	173	86
11-15.	5	—	5	63	—	64
16-20, ...	2	2	—	35	32	—
21-25, ...	—	—	—	—	—	—
Over 25, ...	3	2	1	95	68	30
	189	149	130	618	527	419
Percentage of Births attended, ...				4·1	3·9	3·3

CASES OF PUERPERAL FEVER OCCURRING IN PRACTICE OF MIDWIVES.

		Midwives			Cases	
	1921	1922	1923	1921	1922	1923
1 Case, ...	44	57	55	44	57	55
2 Cases, ...	18	15	13	36	30	26
3 ,, ...	5	7	2	15	21	6
4 ,, ...	3	3	1	12	12	4
5 ,, ...	1	—	2	5	—	10
6 ,, ...	—	—	—	—	—	—
	71	82	73	112	120	101

NUMBER OF REQUESTS FOR ASSISTANCE TO MEDICAL PRACTITIONERS IN CASES OF EMERGENCY UNDER RULE.

		Midwives			Requests made	
Notifications	1921	1922	1923	1921	1922	1923
Under 10, ...	144	154	141	584	601	608
20, ...	34	43	34	494	618	472
30, ...	19	29	23	480	722	589
40, ...	14	13	11	502	460	389
50, ...	3	5	6	132	234	271
Over 50, ...	3	6	3	265	485	244
	217	250	218	2,457	3,120	2,573

There has been within the past five years a considerable increase both in number and percentage of requests for medical assistance, until 1922, when the proportion of cases to which doctors were called by midwives reached 22·3 per cent. This year the percentage is 20·2.

NATURE OF EMERGENCY.	1921	1922	1923
(1) In all cases in which a woman during pregnancy, labour, or lying in appears to be dying or is dead, ...	1	1	2
PREGNANCY—			
(2) In cases of a pregnant woman, where there is any abnormality or complication, such as—			
Deformity or stunted growth, ...	8	—	1
Loss of blood, ...	42	47	35
Abortion or threatened abortion. ...	69	94	83
Excessive sickness, ...	7	10	9
Puffiness of hands or face, ...	7	16	9
Fits or convulsions, ...	3	7	1
Dangerous varicose veins.	3	3	4
Purulent discharge, ...	8	4	2
Sores of the genitals, ...	—	—	—
Others, ...	12	14	17
LABOUR—			
(3) In the case of a woman in labour at or near term, when there is any abnormality or complication, such as—			
Fits or convulsions, ...	9	22	10
A purulent discharge, ...	6	3	—
Sores of the genitals.	16	1	4
Malpresentation, ...	77	—*	—
A breech presentation in a primapara, ...	—	36	50
Presentation other than the uncomplicated head or breech, ...	788	1,130	980
Where no presentation can be made out,	6	18	13
Where there is excessive bleeding, ...	78	102	99
Where one hour after the birth of the child the placenta and membranes have not been completely expelled, ...	125	109	81
In cases of serious rupture of the perinæum, or of other injuries of the soft parts,	374	456	360
Administration of drug, ...	—	4	—
Prolonged labour, ...	170	—*	—
Others, ...	17	13	11

---

* Now included under heading "Presentation other than the uncomplicated head or breech."

LYING-IN—

(4) In the case of a lying-in woman, when there is any abnormality or complication, such as—

	1921	1922	1923
Fits or convulsions, ...	7	9	1
Abdominal swelling and tenderness, ...	17	25	15
Offensive lochia, if persistent, ...	7	3	5
Rigor, with raised temperature, ...	7	24	12
Rise of temperature above 100° F., with quickening of the pulse for more than twenty-four hours, ...	187	235	162
Unusual swelling of the breasts with local tenderness or pain, ...	6	14	15
Secondary post-partum hæmorrhage, ...	8	12	5
White leg, ...	4	5	4
Others, ...	70	133	93

THE CHILD—

(5) In the Child, when there is any abnormality or complication, such as—

Still birth, ...	—	171	156
Injuries received during birth, ...	5	5	6
Any malformation or deformity endangering the child's life, ...	22	54	21
Dangerous feebleness, ...	177	214	194
Inflammation of, or discharge from, the eyes, however slight, ...	5	21	4
Serious skin eruptions, especially those marked by the formation of watery blisters, ...	1	18	7
Inflammation about, or hæmorrhage from, the navel, ...	3	2	8
Others, ...	64	67	13
Cannot be classified, ...	41	18	21
	2,457	3,120	2,573

DEATHS (NOTIFIED BY MIDWIVES) BEFORE A DOCTOR WAS IN ATTENDANCE.

1921, ...	2 mothers	37 infants
1922, ...	4 ,,	42 ,,
1923, ...	1 ,,	32 ,,

Laying out the Dead.

1921,	2 adults	9 infants
1922,	3 ,,	3 ,,
1923,	4 ,,	5 ,,

Artificial Feeding.

1921,	40 Notifications.
1922,	42 ,,
1923,	42 ,,

Intimation of Exposure to Infection.

Diseases	1921	1922	1923
Puerperal Fever,	79	76	71
Measles,	5	21	21
Whooping-Cough,	4	1	1
Scarlet Fever,	5	8	5
Diphtheria,	6	2	9
Pemphigus,	2	—	—
Influenza,	1	2	1
Pneumonia,	3	7	2
Erysipelas,	1	2	3
Enteric,	—	—	1
Itch,	—	—	—
Others,	4	6	4
Smallpox,	—	—	—
	110	125	118

SERVICE OF MEDICAL PRACTITIONERS IN CASES OF EMERGENCY.

Owing to the difficulty experienced by midwives in obtaining medical assistance, especially during the night, inquiry was made at all the doctors practising in the East-End of the City as to whether they would be available to attend births, on the call of a midwife, and in reply 35 doctors agreed to their names being included in a list which was subsequently issued, with the following circular letter:—

"Public Health Department,
"Sanitary Chambers,
"Glasgow, April, 1923.

"Dear Madam,

"MIDWIVES (SCOTLAND) ACT, 1915.

"It was recently reported to me that Midwives in practice in the Eastern District of the City sometimes find difficulty in obtaining the services of a Medical Practitioner in emergency cases under the above Act. I, therefore, communicated with all the doctors in the area, and a considerable number have indicated their willingness to undertake emergency calls. For convenience, these have been tabulated according to districts, and the List is appended hereto, which shows name, telephone number, and days and hours of attendance at consultation rooms. When one practitioner is not available, the emergency call notice should be passed on to some other doctor on the List, and it is hoped that no occasion for the delays which have been experienced may again arise.

"Yours faithfully,
"A. K. CHALMERS,
"*Medical Officer of Health.*"

Fees to Doctors in Emergency Cases. — The half-yearly accounts by medical practitioners for emergency services rendered on calls by midwives under Section 22 of the Act attracted attention by their very rapid increase towards the end of 1921, and their continued increase in 1922. The growth of these charges in recent years is as follows:—

Year ended November,	1918,	... ...	£230	8	0
Do. do.,	1919,	... ...	292	12	6
Do. do.,	1920,	... ...	415	9	6
Do. do.,	1921,	... ...	863	9	0
Do. do.,	1922,	... ...	2,040	7	0
Do. do.,	1923,	... ...	1,829	17	0

As the result of special inquiry about £338 15s. has been recovered, and £84 6s. 6d. withdrawn from medical practitioners' accounts.

PUERPERAL FEVER.

The considerable increase in the number of cases of puerperal fever notified during recent years is shown in the following table. During 1923 there was a slight reduction, but as the number of births was also lower the rate remains the same at 10·4. The morbidity was, however, less, and so also was the death-rate per 1,000 births:—

	Cases	Deaths	Case Mortality per cent.	Cases per 1,000 Births	Deaths per 1,000 Births
1914,	218	81	37·2	7·4	2·7
1915,	188	73	38·8	6·7	2·6
1916,	195	69	35·4	7·2	2·5
1917,	164	61	37·2	6·8	2·5
1918,	168	45	26·8	7·1	1·9
1919,	182	53	29·1	7·0	2·1
1920,	298	83	27·9	9·1	2·5
1921,	321	72	22·4	10·8	2·4
1922,	294	94	32·0	10·4	3·3
1923,	278	72	25·9	10·4	2·7

A Departmental Committee was appointed by the Board of Health to inquire into the incidence of puerperal morbidity and mortality, and the following is an outline of the evidence submitted from the Department:—

Prevalence of Puerperal Fever. — The position of puerperal fever in Glasgow having been described in recent Annual Reports of the Medical Officer, a summary of the past ten years' experience was submitted.

TABLE COMPARING INCIDENCE OF PUERPERAL FEVER WITH ATTENDANCE AT BIRTH.

	Proportion of Births		Proportion of Puerperal Fever
Doctors only (at home), ...	29		26
Midwives only ,, ...	47	34	42
Do., then Dr. ,, ...		8	
Institutional Nurses, ...	15		13
Institutions (Doctors), ...	10		14
Others, ...	—		5

Present Inquiry. — The number of cases of puerperal fever registered in Glasgow during the five years, 1918 - 1922, was 1,263, and the deaths 347. The present analysis, however, deals with 1,253 cases and 376 deaths, the difference arising from altered diagnosis after admission to hospital. With regard to the deaths, however, the numbers stated in the table, which is here included from my Annual Report of 1922, only take cognisance of those with home addresses within the City, the others being transferred to the districts of their respective addresses.

Of the 1,253 cases, 144 were not removed to hospital, many of them being cases of abortion or deaths at home; while of the 1,109 hospital cases, 92 were dealt with in the Maternity Hospital and 18 in other institutions, 110 in all, leaving a net balance of 999 cases removed to Local Authority hospitals.

Maternal Occupation.—No statement has been made up with regard to occupation of mother in relation to puerperal fever, as former analyses in this respect have not led to any very definite conclusion. The employment of married women is not a feature of Glasgow industrial life. The provisions under the Factory Act with regard to pregnant women have probably met any difficulties that may arise in relation to birth.

With regard to social and sanitary condition, an inquiry was made into the incidence of puerperal fever in relation to the births in three classes of Wards of the City—poor, artisan, and mainly residential districts—which showed that the rate in the first class was equal to 4·5 per 1,000 births, in the second class 5·8, and in the third class 3·5. This would appear to suggest that insanitary conditions of themselves have little influence on the incidence of the disease, the smaller rate for the good districts probably being due to the economic condition of the mothers concerned enabling them to have adequate supervision during pregnancy. Although the attack-rate in the smaller houses does not appear to be appreciably greater, when it does occur the attack is more likely to prove fatal (see table hereafter).

Table I shows the age distribution of the mothers in whom the 1,253 cases of puerperal fever occurred, its association with living and still births and abortions, &c., whether the birth was at full time or premature, and the number of the occurring pregnancy, &c.

The deaths for each age group are also given. While the death-rate for mothers – 20 is 26 per cent. and – 25 is 23 per cent., it increases steadily thereafter, so that at ages – 30 it is 30 per cent., at – 35 34·6 cent., and at – 40 36·6 per cent.

It seemed of importance to ascertain whether puerperal fever could be regarded as wholly accidental in its occurrence, or was associated with accidents of the puerperium.

An inquiry into the age of the mothers of still-births in 1913 afforded a grading with which to compare those of the mother contracting puerperal fever. The distribution of both ran parallel, but it was found on further inquiry that both corresponded with the age distribution of the mothers of all births over a limited sampling, so that the pathological strain suggested by the frequency of miscarriages in individual women is not supported by the age distribution of puerperal fever, which varies with the age distribution of all mothers.

	Percentages	
Age of Mothers	Puerperal Mothers	Still Births Special Inquiry, 1913
– 20	4·5	4·3
– 25	22·1	22·0
– 30	26·8	25·8
– 35	22·3	22·5
– 40	14·5	17·8
– 45	7·3	6·9
+ 45	1·8	0·7
Not stated	0·7	—
	100·0	100·0

The percentage of married women generally is :—

Age	Percentage
– 20	0·7
– 25	10·0
25—35	45·9
35—45	43·4
	100·0

It will be observed that the proportion of live births decreases from 88 per cent. at under 20 to 38 per cent. over 45 years of age, while the abortions and still-births both increase from 6 per cent. to 15 per cent. and 47 per cent. respectively. The following table gives the information for each age group:—

	Percentage at Each Age		
Age	Alive	Still Birth	Abortion
– 20	88	6	6
– 25	77	8	15
– 30	74	10	16
– 35	71	7	22
– 40	55	14	31
– 45	57	16	27
+ 45	38	15	47
	71	9	20

Still-birth and Illegitimacy compared with General Distribution.—Altogether 834 children were born at full term and 54 prematurely, or about 6 per cent. compared with 5 per cent. generally, while the proportion of illegitmate cases is 8·5 per cent., compared with 6 per cent. generally.

Condition of Placenta.—Of 742 cases where a record was made as to the condition of placenta, 180 were broken or retained, or 24 per cent. The percentage broken or retained for live births was 24, and for still births 21.

Of the total deaths (376), 131 occurred at home and 245 in hospital.

Health of Mother.—Table II indicates the health of mother in relation to live and still births, &c., abortion, full term or prematurely. The health during pregnancy of the mothers of live children born at full term was not good in 17·2 per cent., while for the prematures the percentage is 33·3. The respective proportions of bad health among mothers of still-born children are 18·5 for full term and 34·8 for premature. The percentage of bad health of mothers of abortion cases was 12·6, and for all cases, 18·5.

In an analysis of 500 mothers among the general population, it was found that for live births 11·4 per cent. were stated as not having good health during pregnancy, while the percentage for premature live births was 41. Among the still-births, 36·8 per cent. of the mothers had not good health for full-term pregnancies, while 43·5 is the similar percentage for premature births. Altogether, 14·1 per cent. had apparently either bad or only fair condition of health before the birth of the babies.

Condition of House.—The condition of cleanliness of house and person is shown on Table III, in relation to the day of sickening, and this is also shown in relation to the number of cases occurring in various sizes of houses. The percentage of the houses in fair condition is 19·8, and in dirty condition 4·7, while the relative proportions of fair and dirty persons are 17·9 and 4·9.

In an analysis of normal mothers as to cleanliness, it was found that 15·5 per cent. of the houses occupied by them were not clean, but no information is available as to personal cleanliness.

Mortality-Rate (Puerperal Fever).—The death-rates in the various sizes of houses are given in the following summary:—

	Cases	Deaths	Mortality per cent.	Death Rate per 1,000 persons	Case Rate per 1,000 persons
1 Apt., ...	335	92	27	0·7	2·5
2 Apts., ...	615	171	28	0·3	1·2
3 Apts., ...	140	43	31	0·2	0·7
4 Apts. and up.,	49	11	22	0·1	0·3
Lying-in Homes,	14	8	57	—	—
Institutions, ...	53	28	53	—	—
Not stated, ...	47	23	49	—	—
	1,253	376	30	0·4	1·2

Nature of Attendance at Birth.—The place of confinement and nature of attendance at birth are given in Table IV, and show that 25 per cent. of the cases were medically attended, while over 30 per cent. were attended by a midwife only. In addition, nearly 14 per cent. were attended by a midwife and doctor. The percentage delivered in institutions—almost wholly Maternity Hospital—was 14, while between 6 and 7 per cent. were attended at home by institutional nurses.

Complicated and Instrumental Labour.—80 per cent. of births occurred at home, while 14 per cent. more were in institutions other than nursing homes and midwives' houses.

Table V shows the large proportion of cases of puerperal fever associated with instrumental and complicated labour, both in relation to duration of labour and number of pregnancies. The deaths of puerperal cases where instruments had been used equalled 38 per cent. — for version, &c., 41, lacerations 25, hæmorrhage and placenta retained 31, making a total of 33 per cent. for all complicated labours.

Table VI indicates the occurrence or otherwise of instrumental interference or other conditions, for both recoveries and deaths. The percentage of deaths of all cases where forceps were used was 35; forceps with other complications, 40; lacerations and hæmorrhage together, 56; versions, complicated breach, &c., 39, compared with that for abortions, which was only 19.

In Table VII a comparison is shown of the recoveries and deaths in relation to day of sickening.

Ante-Natal Wards. — Attached hereto is a summary of the reasons for which pregnant women were admitted to the ante-natal ward of the Maternity Hospital, and of the condition on dismissal.

GLASGOW MATERNITY HOSPITAL.

Ante-Natal Wards.

Reasons for Admission and the Condition of Cases on Dismissal.

	1920	1921	1922
Condition on Dismissal—			
(1) Recovered, ...	120	144	128
(2) Improved, ...	210	129	135
(3) Confinement completed, ...	437	283	314
(4) Died, ...	11	3	5
(5) No change, ...	34	80	47
The Reason for Admission—			
Pain, ...	65	14	3
Micturition, ...	16	13	2
Vomiting, ...	45	43	46
Condition of Bowels, ...	16	10	4
Anæmia, Deformity, ...	12	8	14
Condition of Breasts, ...	2	—	—
Heart, ...	35	32	29
Lungs, ...	29	21	21
Varicose Veins, ...	11	3	—
Oedema and Albuminuria, ...	100	143	92
Uterus and Vagina, ...	26	27	41
Other Special Systems—			
Hæmorrhage, ...	160	164	208
Contracted Pelvis, ...	187	112	113
Others, ...	125	69	58
	829	659	631

Table I.—Glasgow: Puerperal Fever. Age. &c., in Relation to Number of Pregnancy, Alive or Still-Birth, Prematurity, &c.

Age	Total	Alive	Still-Born	Not Stated	Full Time	Premature	Abortion	Legitimate	Illegitimate	Number of Present Pregnancy								
										1	2	3	4	5	6	7	7+	Not known
Years – 20, ...	56	44	3	6	38	3	3	31	13	45	4	—	—	—	—	—	—	7
,, – 25, ...	277	206	22	9	223	12	40	208	39	170	62	16	6	2	—	—	—	21
,, – 30, ...	336	228	30	29	239	17	49	249	16	112	74	61	28	24	14	6	4	13
,, – 35, ...	280	178	17	28	189	11	57	240	9	55	37	38	35	32	28	20	21	14
,, – 40, ...	182	79	20	39	89	7	44	129	6	18	15	12	17	13	19	20	52	16
,, – 45, ...	91	36	10	28	42	2	17	62	1	2	2	5	3	4	7	6	48	14
,, + 45, ...	22	5	2	9	6	1	6	13	1	—	1	1	2	2	2	3	11	—
Not stated, ...	9	7	—	1	8	1	1	9	—	—	—	—	—	2	—	—	4	3
	1,253	783	104	149	834	54	217	941	85	402	195	133	91	79	70	55	140	88
Placenta when expelled—																		
Whole or not retained, ...	—	457	53	52	480	29	—	—	—	207	105	52	34	38	27	20	51	28
Broken or retained,	—	143	14	23	154	8	—	—	—	56	24	21	9	12	11	9	20	18
Not stated, ...	—	183	37	74	201	16	—	—	—	113	37	31	24	8	9	12	28	32
Abortions, ...	—	—	—	—	—	—	—	—	—	26	29	29	24	21	23	14	41	10
Hæmorrhage (not including abortions), ...	—	147	32	27	165	11	—	—	—	60	36	21	12	12	13	13	21	16
Deaths—																		
Home, ...	131	67	15	34	79	9	15	87	10	113	61	40	27	25	27	13	39	31
Hospital, ...	245	166	24	29	178	13	26	194	15									

TABLE II. GLASGOW—PUERPERAL FEVER: HEALTH OF MOTHERS RELATED TO LIVE OR STILL BIRTHS, &c., AND NUMBER OF PREGNANCY.

	Health before Confinement	No. of Present Pregnancy. 1	2	3	4	5	6	7	7+	Not Stated	Totals
Alive.											
Full term,	Good,	2	1	—	—	1	—	—	—	—	4
	Bad,	27	26	15	14	16	6	3	17	4	128
	Not stated,	242	98	64	40	31	24	24	41	47	611
Premature,	Good,	—	—	—	—	—	—	—	—	—	—
	Bad,	4	5	1	—	—	—	—	—	—	10
	Not stated,	6	4	1	2	1	2	—	3	1	20
Not stated,	Good,	—	—	—	—	—	—	—	—	—	—
	Bad,	—	—	—	1	—	—	1	—	—	2
	Not stated,	3	—	—	—	—	—	—	—	—	3
Abortion.											
	Good,	—	1	—	—	1	—	1	—	—	3
	Bad,	2	8	4	4	1	2	1	2	3	27
	Not stated,	22	19	24	20	19	21	12	39	8	184
Still Born.											
Full term,	Good,	—	1	—	—	—	—	—	—	—	1
	Bad,	3	2	3	—	—	1	1	4	1	15
	Not stated,	31	5	5	2	2	2	4	10	4	65
Premature.											
	Good,	—	—	—	—	—	—	—	—	—	—
	Bad,	3	1	2	—	—	1	—	1	—	8
	Not stated,	4	1	1	1	—	3	1	1	2	14
Not stated,	Good,	—	—	—	—	—	—	—	—	—	—
	Bad,	—	—	—	—	—	—	—	—	—	—
	Not stated,	1	1	1	1	—	—	—	1	—	5
Others Bad,		5	8	3	4	—	1	2	4	5	32
								Total Bad,		·	232

TABLE III. GLASGOW—PUERPERAL FEVER: CLEANLINESS IN RELATION TO DAY OF SICKENING AND HOUSING.

	Day of Sickening Days 2	4	7	Month -1	+1	Not Stated	Total
House.							
Clean, ...	189	185	171	131	10	60	746
Fair, ...	57	37	41	48	—	12	195
Dirty, ...	8	17	6	11	—	4	46
Not stated, ...	83	61	42	32	4	44	266
	337	300	260	222	14	120	1,253
Person.							
Clean, ...	194	176	166	131	10	56	733
Fair, ...	46	35	36	42	—	11	170
Dirty, ...	11	14	6	10	—	6	47
Not stated, ...	86	75	52	39	4	47	303
	337	300	260	222	14	120	1,253
Size of House.							
1 Apt., ...	75	89	73	68	4	26	335
2 Apts., ...	177	144	124	115	8	47	615
3 ,, ...	39	34	38	22	—	7	140
4 ,, and up,	11	13	13	7	—	5	49
Lying-in Homes,	7	5	2	—	—	—	14
Institutions, ...	—	3	9	6	—	35	53
Not stated, ...	28	12	1	4	2	—	47
	337	300	260	222	14	120	1,253

TABLE IV.—Puerperal Fever.

Place of Confinement and Nature of Attendance, &c.

Attended by	Where Confined Home	Hospital	Nursing Home	Midwife's House	Total
Doctor, ...	306	—	7	1	314
Midwife, ...	393	—	4	11	408
Dr. and Midwife,	160	—	1	15	176
Handywoman,	3	—	—	—	3
Institution.					
Outdoor, ...	112	—	—	—	112
Indoor, ...	—	177	—	—	177
No one (unknown),	63	—	—	—	63
Total,	1,037	177	12	27	1,253
Alive, ...	679	74	6	24	783
Stillborn, ...	77	27	—	—	104
Abortions, ...	175	38	2	2	217
Not stated, ...	106	38	4	1	149
Full Time, ...	714	91	5	24	834
Premature, ...	39	14	1	—	54

TABLE V.—Puerperal Fever.

Duration of Labour in relation to Instrumental Interference, &c.

	Instrumental or Complicated Labour.							
	Instrumental, with other Complications	Version, &c.	Lacerations	Hæmorrhage and Placenta retained	Totals	Abortions	No History	Others
Duration of Labour.								
- 4 hours, ...	15	1	22	34	72	16	3	79
- 8 ,, ...	29	1	37	37	104	15	5	78
- 12 ,, ...	34	3	28	25	90	5	—	44
- 24 ,, ...	77	3	45	38	163	10	4	72
+ 24 ,, ...	108	6	19	16	149	14	1	37
Not stated, ...	29	8	11	20	68	158	19	47
	292	22	162	170	646	218	32	357
No. of Pregnancy.								
1, ...	148	3	16	43	210	25	7	160
2, ...	36	3	75	29	143	29	6	17
3, ...	23	1	27	19	70	28	4	31
4, ...	26	—	16	11	53	26	3	9
5, ...	30	1	4	14	49	22	1	7
+5, ...	6	11	10	49	76	76	5	108
Not stated,	23	3	14	5	45	12	6	25
	292	22	162	170	646	218	32	357
Deaths.	111	9	41	52	213	41	6	96

TABLE VI.—GLASGOW: PUERPERAL FEVER.

RECOVERY OR DEATH IN CONNECTION WITH COMPLICATIONS.

	Recoveries				Deaths			
	Instrument	Not Instrument	Not Stated	Abortion	Instrument	Not Instrument	Not Stated	Abortion
Forceps, ...	72	—	—	—	38	—	—	—
Forceps, with other complication, ...	109	—	—	—	73	—	—	—
Lacerations, ...	—	121	—	—	—	41	—	—
Hæmorrhage and Retained Placenta, ...	—	118	—	—	—	52	—	—
Version: Comp. Breech, &c., ...	—	14	—	—	—	9	—	—
Previous Illness, ...	—	57	—	—	—	30	—	—
Outside Infection, ...	—	3		—	—	2	—	—
Venereal Disease, ...	—	5	—	—	—	1	—	—
Normal, ...	—	194	—	—	—	63	—	—
No History, ...	—	—	8	—	—	—	26	—
Abortions, ...	—	—	—	176	—	—	—	41
	181	512	8	176	111	198	26	41
			877				376	

TABLE VII.—GLASGOW: PUERPERAL FEVER.

RECOVERY OR OTHERWISE IN RELATION TO DAY OF SICKENING.

Interval between Date of Birth and of Sickening	Recoveries						Deaths					
	—1 Mo.	—2 Mos.	—3 Mos.	+3 Mos.	Not Stated	Total	—2 Days	—1 Wk.	—1 Mo.	1 Mo.	Not Stated	Total
— 2 days, ...	113	77	10	5	29	234	9	42	43	9	—	103
— 4 ,, ...	113	50	3	3	30	199	3	37	55	6	—	101
— 7 ,, ...	104	38	2	5	29	178	3	25	43	11	—	82
— 1 month, ...	94	37	14	5	24	174	4	18	23	2	1	48
+ 1 ,, ...	5	4	—	1	—	10	1	1	1	1	—	4
Not stated, ...	51	12	4	2	13	82	—	—	—	—	38	38
	480	218	33	21	125	877	20	123	165	29	39	376

SECTION IV.

INFECTIOUS DISEASE.

Appendix Tables XVII and XVIII show the number of cases of the various diseases registered during the year, and the rates per million of the population, together with a comparison with previous years.

The case-rates of the diseases dealt with under the Infectious Diseases (Notification) Act, 1889, are summarised in the following table since the year 1913. The case-rates given in the column headed "All Others" include in the earlier years only measles, whooping-cough, and chickenpox, but more recently ophthalmia neonatorum, trachoma, malaria, dysentery, certain forms of acute disease of the central nervous system, and the various forms of pneumonia made notifiable from time to time are embraced:—

GLASGOW.—CASE-RATE PER MILLION OF THE POPULATION FOR ALL CASES OF INFECTIOUS DISEASES REGISTERED SINCE 1913.

YEAR	Typhus Fever.	Enteric Fever.	Continued and Undefined.	Puerperal.	Smallpox.	Scarlet Fever.	Diphtheria and Membranous Croup	Cerebro-Spinal Fever.	Phthisis.	Non-Pulmonary Tuberculosis.	All Others.	TOTAL.
1913,	39	232	7	144	...	4,005	1,934	35	2,552	...	26,247	35,195
1914,	18	340	7	206	...	5,337	1,440	45	2,284	[1] 1,088	21,675	32,440
1915,	9	248	5	175	...	5,973	1,257	167	2,169	1,375	25,389	36,667
1916,	17	158	8	178	...	3,719	1,220	131	2,285	1,270	17,001	25,987
1917,	1	82	4	148	...	1,634	1,146	75	2,435	1,433	27,005	33,963
1918,	49	128	12	151	1	1,193	1,379	67	2,258	1,273	16,045	22,556
1919,	30	103	8	163	5	2,443	1,626	72	1,834	1,083	21,359	28,726
1920,	8	204	13	267	477	3,378	1,809	76	2,009	1,063	25,509	34,813
1921,	6	100	7	299	19	3,272	1,727	56	1,902	1,061	23,965	32,414
1922,	18	79	6	272	...	3,212	1,561	62	1,806	970	31,419	39,405
1923,	2	116	20	255	...	3,277	1,623	59	1,584	1,133	25,453	33,522

The case-rate per million for all infectious diseases registered during the year, 33,522, is considerably lower than that of the previous year, the difference being mainly due to the lower measles rate.

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[1] Non-pulmonary tuberculosis made compulsorily notifiable, July, 1914.

Apart from acute primary pneumonia, there is little alteration in the rates of the major infections. Typhus fever occurred in sporadic form, enteric fever in slightly greater prevalence, but the rate for puerperal fever is lower because of the fewer number of births. Scarlet fever and diphtheria show a slightly higher incidence than in the preceding year.

Pulmonary tuberculosis, with a rate of 1,584 per million, is considerably lower than in any year since compulsory notification was introduced. It is doubtful whether the figure given for the non-pulmonary forms of tuberculosis represents the actual prevalence.

These diseases, together with the others referred to above, are dealt with in more detail in the following pages.

DISEASES FORMERLY CALLED "PRINCIPAL ZYMOTIC DISEASES."

The death-rates for several periods have been:—

1881-90, ...	3·600	per 1,000 living.	1917, ...	2·063	per 1,000 living.
1891-1900,...	3·282	,,	1918, ...	1·434	,,
1901-1905,...	2·660	,,	1919, ...	1·583	,,
1906-1910,...	2·450	,,	1920, ...	1·224	,,
1911-1915,...	2·424	,,	1921, ...	1·116	,,
1916, ...	1·733	,,	1922, ...	1·997	,,

1923, ... 1·46.

In this comparison only those infectious diseases that have been notifiable for most of the period given are included.

SMALLPOX AND VACCINATION.

The year was again free from smallpox, but contacts have been frequently notified by other Port Authorities as arriving on board vessels on which cases have occurred, or reaching this country from places where the disease is prevalent.

Vaccination.—The number of vaccinations done at the district centres during 1923 again shows an increase, there being 2,823, compared with 2,647 for the preceding year. Since free vaccination was begun at the infant consultation centres, there has been a continuous increase in the numbers. This increase may to a certain extent be due to the present industrial depression, preventing parents attending their family medical attendant;

but, on the other hand, the number reflects the increasing use which is being made of the facilities provided at Child Welfare Centres.

Statement showing Number of Infants Vaccinated at the Child Welfare Consultations during the Years 1920 1923.

	1920	1921	1922	1923
Public Health Office, ...	60	109	156	255
Garngad, ...	57	184	71	95
Port Street, ...	78	145	147	134
Ruchill, ...	68	90	107	183
Merryland Street, . ..	57	142	89	140
Adelphi Street, ...	138	203	236	168
Partick, ...	110	135	153	191
Weir Street, ...	40	96	126	142
London Road, ...	63	305	728	779
Shettleston, ...	96	167	249	221
Campbellfield Street.	143	108	204	154
Cowcaddens, ...	136	276	292	296
Elder Hospital, ...	43	105	89	65
	1,089	2,065	2,647	2.823

VACCINATION (SCOTLAND) ACT, 1907.

The following shows the number of declarations of conscientious objection to vaccination made each year since the Act came into operation :—

1907, ...	407	1915, ...	7,062
1908, ...	2,183	1916, ...	7,013
1909, ...	2,653	1917, ...	7,017
1910, ...	3,231	1918, ...	6,049
1911, ...	3,791	1919, ...	6,489
1912, ...	4,371	1920, ...	4.342
1913, ...	6,804	1921, ...	4,992
1914, ...	7,580	1922, ...	5.668
1923, ...	5,497		

The following table shows the results of primary vaccination of children since the year preceding the Act of 1907. The percentage successfully vaccinated fell to 54 in 1918, but recovered to nearly 74 in 1920, following the outbreak of small-pox in 1919-20. This percentage is still almost 10 below that of the year 1906, before the Conscientious Objection Act came into operation:—

Table showing Results of Primary Vaccination of Children born during several years.

(From the Detailed Annual Reports of the Registrar-General).

Year	Successfully vaccinated Per cent.	Insusceptible of vaccine disease Per cent.	Died before vaccination Per cent.	Conscientious objection to vaccination Per cent	Vaccination postponed Per cent.	Unaccounted for Per cent.
1906,	82·9	0·5	10·6	0·2	0·8	5·0
1907,	75·0	0·7	10·7	4·9	1·5	7·2
1908,	69·5	0·8	10·8	9·2	1·7	8·0
1909,	67·2	0·8	10·6	12·6	1·7	7·1
1910,	64·8	0·5	9·8	16·0	1·6	7·3
1911,	65·2	1·2	12·0	11·8	1·5	8·3
1912,	57·3	0·6	10·4	22·0	1·8	7·9
1913,	54·7	0·6	10·6	24·9	1·6	7·6
1914,	51·7	0·9	12·1	25·1	1·8	8·4
1915,	56·2	0·6	10·0	24·9	1·8	6·5
1916,	55·2	0·7	9·7	26·6	2·1	5·7
1917,	55·2	0·9	9·7	27·3	2·2	4·7
1918,	54·4	1·0	10·0	26·6	2·5	5·5
1919,	60·4	0·7	8·9	25·5	0·6	3·9
1920,	73·7	1·4	8·5	11·2	1·4	3·8
1921,	63·4	2·0	9·6	19·1	1·8	4·1

TYPHUS FEVER.

Only two cases of typhus fever were recorded during the year, both of them associated with a model lodging-house on the south side of the river. The first case was that of a man, aged 24 years, who had been removed to a Parish Council hospital on 27th December of the previous year, but was afterwards diagnosed as suffering from typhus fever, and transferred to the Fever Hospital on 6th January. No source of infection could be traced, but one of the contacts removed to the Reception House subsequently sickened on 21st January, and was removed to hospital on 25th. This patient died on 3rd February.

The death-rate for several periods has been as follows:—

1881-1890, -	·040 per 1,000	1916-20, -	·005 per 1,000
1891-1900, -	·016 ,,	1921, -	·001 ,,
1901-1910, -	·006 ,,	1922, -	·005 ,,
1911-1915, -	·009 ,,	1923, -	·001 ,,

ENTERIC FEVER.

Tables XVII and XVIII in the Appendix show the number of cases of enteric fever registered since 1921, together with the rates since 1919.

During the year 126 cases of enteric fever were registered, compared with 85 for the preceding year, which was the lowest on record. The influence of inoculation of so many men during the war has had the effect in recent years of altering the proportion of male and female cases. This year there is again a lower incidence amongst males, the ratio being 60 males to 66 females. The proportion of male cases between the ages of 15 and 45 is quite definitely below the numbers occurring for the same ages of females. It may be that the increasing employment of a larger number of women in industry is probably also a factor in the heavier female incidence at these ages, whereas formerly male cases usually predominated.

No pronounced grouping of cases occurred during the year, the highest number recorded being 10 in Govanhill and 9 cases in Kinning Park, although 17 cases were recorded in Institutions and 7 in the Harbour. Occasionally some cases are not recognised as enteric fever until others occur, and in this connection it was thought advisable to issue a circular on 18th July to medical practitioners, calling their attention to the fact that, as far as possible, the facilities provided in the Corporation Bacteriological Laboratory should be made use of for the verification of diagnosis. The following is the circular referred to:—

Sanitary Chambers,
Glasgow, 18th July, 1923.

Dear Sir (or Madam),

Enteric Fever.—Blood Cultures.

On a recent occasion four cases of enteric fever occurred in association with one which was unfortunately regarded as not being enteric fever, because of the absence of a positive Widal reaction in a blood sample taken during the first week.

It is exceedingly unfortunate that such cases should occur, and it cannot be too strongly insisted on that during the first six or seven days of an attack of enteric fever a blood culture is more reliable than a Widal test, although even it fails in a proportion of cases. In no case should positive clinical evidence be set aside because of a single negative laboratory result.

Equipment for taking the requisite blood for culture may be obtained from this office on request, and, if necessary, one of the medical staff will arrange to take the specimen to be examined.

Yours truly,

A. K. CHALMERS,
Medical Officer of Health.

The highest numbers were recorded in August and September, when 18 cases were recorded in each month.

For several periods the death-rate from enteric fever in Glasgow has been—

1881-1890,	...	·230 per 1,000	1916-20,	...	·023 per 1,000
1891-1900,	...	·215 ,,	1921,	...	·016 ,,
1901-10,	...	·127 ,,	1922,	...	·011 ,,
1911-15,	...	·058 ,,	1923,	...	·013 ,,

The following table gives the case-mortality for each year since 1921, together with the mortality at home and in hospital:—

	1921	1922	1923
Per cent. treated in hospital, ...	96	93	90
Case-mortality per cent., ...	16	14	11
,, ,, in hospital, ...	16	14	7
,, ,, at home, ...	14	17	50

SCARLET FEVER.

The number of cases recorded was 3,568, which compares with 3,475 during 1922, and all except 217 were removed to hospital, or approximately 94 per cent. The case mortality per cent. was 2·0, the rate for cases treated in hospital being 1·9, compared with 4·1 among home cases.

The highest prevalence occurred in Dalmarnock Ward where 189 cases were recorded, followed by 177 in Hutchesontown, and may be explained by the high proportion of children in these districts. The period of increased prevalence is usually during late autumn, but during 1923 it occurred during the first quarter of the year.

The sex distribution shows that 1,567 cases were males and 2,001 females. The age distribution again shows a higher proportion of females at the older ages.

The following table is interesting as showing the variation in age incidence of cases occurring since 1914. For the purpose of comparison the ages over 15 may be taken as relatively stable, but some marked differences occur as between children under 5 and those of school age. The years 1914-18 show a relatively greater incidence among children under school age, while during 1919-21 the proportion among children of school age tended to increase:—

Scarlet Fever—Percentage of Cases Occurring at Various Ages.

Year	—1	—5	—15	—25	—45	—65	65+
1923, ...	1·1	26·2	58·8	9·3	4·0	0·6	...
1922, ...	0·9	25 0	61·1	9·5	3·2	0·4	...
1921, ...	0·9	19 4	64·2	11·0	4·1	0·4	...
1920, ...	0·8	20·4	62·2	11·4	4·8	0·4	...
1919, ...	0·7	22·9	60·1	11·8	4·1	0·4	...
1918, ...	0·9	25·6	58·8	9·4	4·9	0·4	...
1917, ...	0·8	22·8	59·9	11·4	4·7	0·4	...
1916, ...	1·4	24·9	52·9	16·5	3·9	0·4	...
1915, ...	1·2	26·4	57·4	10·1	3·7	0·2	...
1914, ...	1·0	24 5	60·6	9·4	4·0	0·5	...

The death-rate from the disease since 1881 has been as follows:—

1881-90, ...	·490 per 1,000	1916-20, ...	·060 per 1,000
1891-1900,	·295 ,,	1921, ...	·050 ,,
1901-10, ...	·116 ,,	1922, ...	·069 ,,
1911-15, ...	·163 ,,	1923, ...	·066 ,,

The percentage treated in hospital and mortality of cases treated in hospital and at home were as follows:—

	1921	1922	1923
Per cent. treated in hospital, ...	97	95	94
Case-mortality per cent., ...	1·5	2·2	2·0
,, ,, in hospital, ...	1·5	2·1	1·9
,, ,, at home, ...	2·3	3·9	4·1

The number of return cases—*i.e.*, cases sickening after return of a previous case from hospital—has remained at 2 per cent. of the dismissals during the past six years. Of the return cases 35 per cent. occurred within one week of the hospital dismissal, 38 per cent. within two weeks, and 27 per cent. over that period.

Glasgow, 1921-1923.—RETURN Cases.—Time Elapsing between Return of Earlier and Sickening of Subsequent Cases.

Year.	– 1 week.	– 2 weeks.	2 weeks and over.	Total.	Percentage of total Dismissals.
1921, ...	28	19	30	77	2
1922, ...	20	27	21	68	2
1923, ...	25	27	19	71	2

Secondary Cases.—The number of secondary cases fell to 2 per cent. The number occurring within one week after disinfection for a previous case was 67 per cent., compared with 21 per cent. within the second week, and 12 per cent. over that period.

GLASGOW, 1921-1923.—SECONDARY CASES OCCURRING IN HOUSEHOLD AFTER DISINFECTION.

Year.	– 1 week.	– 2 weeks.	2 weeks and over.	Total.	Percentage of cases removed to hospital.
1921, ...	74	32	19	125	4
1922, ...	49	15	8	72	2
1923, ...	35	11	7	53	2

As nearly 95 per cent. of the total milk supply brought into Glasgow is pasteurised outbreaks due to infected milk now seldom occur.

The following note is interesting, however, as giving the details of an outbreak of scarlet fever associated with milk supply:—

Milk Outbreak of Scarlet Fever. — On 7th February a case of scarlet fever in the desquamating stage was discovered at a dairy farm in the west-end of the City. The patient, aged 8 years, a son of the occupier, had sickened on 17th January, and was said to have then had a "blush" on the skin, a sore throat, and swollen cervical glands. The case was not recognised as scarlet fever at the time, but by 7th February, when attention was drawn to the farm by the occurrence of cases of scarlet fever on the milk supply, typical desquamation was apparent on the hands and feet. During convalescence the boy had free access to the adjacent dairy premises. The cases among families obtaining milk from the farm occurred as follows:—

Date of Sickening.	No. of Cases	Notes
Jan. 26, ...	1	
,, 27, ...	2	
,, 31, ...	1	
Feb. 1, ...	1	
,, 2, ...	2	
,, 4, ...	3	
,, 5, ...	3	
,, 6, ...	3	
,, 7, ...	1	Case at Farm removed to Hospital on 7th February.
,, 8, ...	2	
,, 9, ...	3	
,, 11, ...	1	Secondary Case.
,, 14, ...	1	
,, 17, ...	1	School Infection.
,, 18, ...	1	Secondary Case.

The cases up to those sickening on 9th February may be regarded as undoubtedly due to milk infection. Of the four who sickened on subsequent dates, two were contacts with previous cases in the same house and one was a school contact with a boy who took ill on 14th February. Excluding these three, there were thus 23 cases directly concerned in the outbreak. The farm distributed milk from its own cows, 40 gallons daily, and also a further 80 gallons received pasteurised from another source. Practically the whole of the latter supply was mixed with half of the former, so that the majority of the customers obtained mixed milk, which was responsible for all except two of the cases. The source of infection was therefore due to the actual handling of milk at the farm itself. Following the removal of the case to hospital, thorough disinfection, and other precautions as to method of distribution, no further cases occurred.

DIPHTHERIA AND MEMBRANOUS CROUP.

These diseases showed considerable diminution during the war years, the lowest point being reached during 1917. From then they increased until 1919-20, but have since followed a fluctuating course. In 1923 the cases recorded numbered 1,767, compared with 1,689 in 1922. This is equivalent to a case rate of 1,623, as compared with 1,561 for the preceding year. Of the cases registered 1,699 were removed to hospital, or 96 per cent. of the total, which is similar to the proportion of the preceding year.

The largest number of cases was recorded in Gorbals where there were 88 cases during the year, followed by 84 in Partick East and 80 in Provan district. No pronounced grouping occurred, but the following is an instance of the occurrence of cases amongst scholars in a private school:—

Diphtheria — School Infection. — Towards the end of the year a small group of cases of diphtheria occurred among the scholars in a private day school. The first case, aged 14, sickened on 25th September; the second, aged 10, on 18th November; the third, aged 12, on 20th December. On 13th January, after the Christmas holidays, a fourth child, aged 5, in the Kindergarten Department, contracted diphtheria. The throats of the teaching and domestic staffs were then examined, and arrangements made to have the scholars certified free from infection by their medical attendants. As a result of this procedure, out of the 133 scholars examined 13 were found to be harbouring the diphtheria bacillus, although in four only was the organism a virulent one. These four children were in different classes, and all thirteen scholars were well and free from clinical symptoms, present or recent.

As regards the staff, one of the teachers, who taught the class in which the first and third cases were scholars, was found to have had a slight sore throat during the Christmas holidays and to be harbouring a virulent organism. One of the two maids who attended the cloak room and the lunch table and issued milk to the scholars had also had a sore throat at Christmas, but when swabbed later the result was negative. The swab from the other maid, however, was positive, although she had no clinical symptoms or history. It is thus likely that the infection among the scholars was carried over the Christmas holidays by means of the staff. Following the elimination of the positive carriers from the school no further cases occurred.

Conjunctival Diphtheria as a Source of Infection.—A child, aged 6 years, in attendance at the Eye Infirmary was reported to have conjunctival diphtheria (bacteriologically positive) on 22nd December, and was removed to hospital on the same day. Her eyes had become infected during residence in a country home on 20th November, and she returned home shortly afterwards. The patient's brother, aged eighteen months, sickened of faucial diphtheria on 3rd December. Two other children, playmates of the patient, residing in adjacent houses on the same stairhead, contracted diphtheria on 7th and 8th December. All three had positive swabs, and were removed to hospital.

The season of heaviest incidence was the first quarter of the year, but the largest number recorded in any month was during December.

The sex incidence, as with scarlet fever, shows a higher prevalence among the older ages of females, but otherwise the disparity is less marked, and at ages 2-5 males exceeded the females. The following table gives the comparison of the age distribution of these diseases since 1914, and shows that on the average over 40 per cent. of the cases occur during school age:—

DIPHTHERIA: PERCENTAGE OF CASES OCCURRING AT VARIOUS AGES.

Year	—1	—5	—15	—25	-45	—65	65+
1923, ...	4·2	34·5	43·7	10·7	5·8	1·0	0·1
1922, ...	3·9	33·6	44·7	10·7	5·9	1·2	...
1921, ...	3·2	27·4	50·1	12·0	6·0	1·1	0·2
1920, ...	3·1	28·7	49·4	11·0	7·0	0·8	...
1919, ...	1·9	32·6	48·6	10·4	5·2	1·2	0.1
1918, ...	2·3	38·5	43·5	10·2	4·6	0·8	0·1
1917, ...	3·0	37·7	39·5	12·3	6·5	0·9	0·1
1916, ...	3·7	42·2	36·4	11·5	5·5	0·7	...
1915, ...	4·3	39·3	38·5	12·5	4·9	0·4	0·1
1914, ...	3·5	38·7	38·3	12·0	6·2	1·3	...

The following table shows the death-rates per 1,000 living since 1881:—

1881-90, ...	·280 per 1,000 living	1916-20, ...	·143 per 1,000 living.
1891-1900, ...	·231 ,,	1921, ...	·120 ,,
1901-05, ...	·134 ,,	1922, ...	·128 ,,
1906-10, ...	·205 ,,	1923. ...	·133 ,,
1911-15, ...	·187 ,,		

The case-rate since 1919 is shown in Appendix Table XVIII.

The percentages treated in hospital and mortality of hospital and home cases were :—

		1921	1922	1923
Percentage treated in hospital,	...	94	96	96
Case-mortality per cent., ...	...	7·0	8·2	8·2
„ in hospital, ...	...	6·6	7·9	7·5
„ at home, ...	...	13·8	14·9	26·5

Inoculation of diphtheria toxin-antitoxin has been done on several occasions in connection with outbreaks of diphtheria in institutions. The following is a summary of results of the application of the Schick test to groups of nurses and patients in Belvidere Fever Hospital :—

At Belvidere Fever Hospital routine examinations of patients, mostly children, and nurses have been carried out, and a report on 181 tests made under a variety of circumstances was the subject of a contribution to a discussion in the section of Epidemiology and State Medicine (Proceedings of Royal Society of Medicine, Volume XV., No. 7, May, 1922).

The following summaries of results are recorded as of interest :—

	Injections	Positive	Pseudo Reaction	Remarks
(*a*) Nurses not exposed to Diphtheria and no history of disease, ...	19	3	1	
(*b*) Scarlet Fever patients exposed to Diphtheria,	19	6 2 gave +ve swabs.	3 – ve swabs.	Female 15 yrs., –ve, had Diph. 10 yrs. ago, throat repeatedly positive; another female, 6 yrs. repeatedly + ve swabs (no virulence test).
Do.,	20	9 – ve swabs.	...	
Do.,	20	8 – ve swabs. 3 developed Clinical Diphtheria.	1 – ve swabs. 1 developed Clinical Diph.	
(*c*) Scarlet Fever Cases not exposed to Diphtheria,	55	9	...	No history of Diph.
(*d*) Enteritis Cases exposed to Diphtheria, ...	8	2		– ve swabs.
(*e*) Enteritis Cases not exposed to Diphtheria, ...	8	0	...	
(*f*) Mixed Scarlet and Diphtheria Cases after Serum treatment, ...	7	0	...	
(*g*) Diph. ? before Serum treatment, ...	1	0		– ve swabs.
(*h*) Measles exposed to Diphtheria, ...	14	3	...	
(*i*) Measles not exposed to Diphtheria, ...	12	2	...	

Of the total tests, 183, there were 42 positive, or 23·3 per cent., while in 94 tests of patients not exposed to diphtheria, 14 were positive, or 14·9 per cent.

The following shows the age incidence and results of 766 cases in the scarlet fever wards :—

Age	Total Tests	Per Cent. Positive	Age	Total Tests	Per Cent. Positive
–1	10	...	6–8	64	28·1
–2	41	26·9	8–10	55	34·6
–3	59	42·4	10–15	58	22·4
–4	54	40·7	15–20	61	14·7
–5	68	48·5	20+	227	14·5
–6	69	44·9	All ages	766	27·9

ERYSIPELAS.

Erysipelas showed a marked reduction during the war years, when many men were on service, and especially in the later years of the war, when considerable restrictions were placed on the sale of liquor. After 1918 the disease gradually increased until 1922, when 1,126 cases were recorded. In 1923 there were 1,024 cases.

The case-rate for 1923 is 940, compared with 1,041 for the preceding year and 644 in 1918, which was the lowest rate recorded during recent years. More cases were registered during the first quarter of the year than at any other period, while the age of greatest incidence was between 45 and 55. 479 were males, and 545 females.

CEREBRO-SPINAL FEVER.

64 cases were recorded, compared with 67 during the preceding year, and 63 in 1921. The cases and case-rates are given in Tables XVII and XVIII in the Appendix.

ACUTE ENCEPHALITIS LETHARGICA (ACUTE POLIO-ENCEPHALITIS AND ACUTE POLIOMYELITIS).

In this group of diseases 115 cases were registered, of which 110 were acute encephalitis lethargica, 1 polioencephalitis, and 4 poliomyelitis. 68 cases of encephalitis lethargica were removed to hospital, and the other 42 remained at home. Most of the cases occurred in the spring, 48 cases being recorded during the month of March alone. This prevalence was greater than in any year since notification was introduced, the rate for all three diseases being 106 per million, compared with 28 during the preceding year. No marked prevalence occurred in any district, but the occurrence of the diseases in the early months of the year made it advisable to issue the following circular to medical practitioners, directing their attention to the clinical symptoms:—

14th March, 1923.

Dear Sir or Madam,

Infectious Disease Notification Act, 1889.

I beg to draw your attention to a recent increase of Encephalitis Lethargica in the City, and to the fact that a number of cases now occurring are of severe type, and show unusual clinical features. From data obtained from the Fever Hospitals and also from clinical histories, kindly supplied by medical men who have had patients under treatment, Dr. Macgregor has prepared a synopsis of the outstanding clinical symptoms. It may be well to remind you that this disease is notifiable in Glasgow, and it will help towards forming a clearer conception of it if practitioners will be good enough, in addition to notifying cases, to forward a note of (1) the salient clinical features, particularly the earlier symptoms; (2) previous possibly mild infections in the same family; and (3) any information as to source of infection which may come to their notice.

The following is Dr. Macgregor's memorandum:—

Encephalitis Lethargica.

In the majority of the cases of Encephalitis Lethargica now occurring in the City the irritative stage tends to be more pronounced and more prolonged, and the febrile disturbance greater than in the cases met with since the last outbreak in 1920. This change in type has led to some difficulty in the recognition of the true nature of the attack, at any rate in its earlier stages, patients being at first diagnosed as suffering from acute chorea, acute rheumatism, meningitis, influenza, acute mania, and even cerebral hæmorrhage, while the great restlessness and "delirium" present in some of the patients, and the occurrence of spasmodic twitching or choreiform movements have tended to confuse the usual clinical picture.

The signs and symptoms referable to the involvement of the central nervous system, which is the seat of affection in this disease, are extremely varied, and it is difficult to give a concise description of the onset and progress. The former may be acute or gradual, and the latter brief or prolonged, with resulting exhaustion and mental impairment.

So far as has been ascertained, about thirty-five definite cases, with eight deaths, have occurred, most of them sickening during February of this year. A few of these are similar to the type usually met with where irritative symptoms are slight or absent, neuro-muscular disturbance confined to the ocular muscles, and drowsiness or lethargy a prominent feature. The majority, however, have a pronounced irritative stage, with excitement and restlessness, especially during the night, sometimes requiring forcible control, while twitching or choreiform movements of groups of muscles or of the whole body are a marked feature in most of the cases. The onset is commonly that of an acute infection, and the temperature as a rule varies from 100 degrees to 102 degrees F., though hyperpyrexia may occur. In those cases where restlessness and twitching movements are prominent, they appear early in the illness, but there may be a preliminary period of a few days or even a few weeks marked by headache, sleeplessness, neuralgic pains in the trunk and limbs, giddiness, and occasional vomiting. Ophthalmoplegic symptoms, of which the chief is diplopia, are typical of the disease, but they may be transient and absent at the time of examination.

While these are the main feautres of the symptomatology, it should be pointed out that the cases do not readily fall into definite clinical types. For this reason it may be best to describe briefly the principal signs and symptoms which have been exhibited by the cases now occurring, though these may be variously combined, and are by no means always present in individual patients with the severer types of illness.

1. *Initial Symptoms.*—
    - (*a*) Initial complaint of rheumatism or neuralgia in a limb, the shoulder, neck, face, or abdomen.
    - (*b*) Giddiness or fainting attacks.
    - (*c*) Sleeplessness.
    - (*d*) Vomiting.
    - (*e*) Influenzal symptoms and sore throat.
2. *Fever.*—In the acuter cases there may be fever from the beginning, continuous at first, and later intermittent. In a few cases, mostly fatal, there may be hyperpyrexia.
3. *Toxic Restless State.*—This may be extreme, requiring forcible control, resembling an acute toxic mania. In others it may be described as a delirious sleepiness, out of which the patient can be aroused and can talk sensibly.
4. *Involuntary Muscular Movements.*—Variously described as twitching, spasmodic, choreiform, involving the feet, the limbs, or the whole body. Dr. Ivy Mackenzie describes them as " varying from the slow gesticulations of hysteria to the coarse tremors of traumatic neurasthenia."
5. *Insomnia and Restlessness.*—This is an almost constant feature, noticeable especially during the night. It is important to note that in a few cases there has been no drowsiness or lethargy, though possibly this may develop later.
6. *Kernig's Sign and Nuchal Rigidity.*—In most cases these are entirely absent, though a few patients complain of some stiffness of the neck.
7. *Ocular Signs and Symptoms.* — Diplopia is the most frequent, though ptosis may be present on one or both sides, and in one or two instances nystagmus has been noted. The appearance and reactions of the pupils vary considerably.
8. *Facies.*—The face may assume a dull mask-like expression.

A. K. CHALMERS,
Medical Officer of Health.

During the year 130 notifications of these diseases were received. On a subsequent special analysis of the cases referred to, only 75 cases were ultimately regarded as true encephalitis, the others being altered to tubercular meningitis, 9; pneumonia, 6; insanity, 1; neurasthenia, enteritis, influenza, cerebro-syphilis, cerebral-tumour, and tuberculosis, 2 each; and other nervous conditions, &c.

The age distribution of the corrected cases indicates a higher prevalence among boys, there being 19 at school ages, as against 10 among females. On the other hand, between 15 and 40 there were only 11 male cases, as against 18 female cases, possibly associated with the closer contact of mothers with ailing children, although no such cases have been recognised.

There was, however, no grouping of the disease in any particular ward; indeed in no instance was there more than one case in a house. The deaths in this group of cases numbered 16, representing a mortality of 21 per cent.

MEASLES.

Measles was less prevalent during 1923 than in 1922, when, however, its incidence was unusually heavy. In 1923, 10,305 cases were registered, of which 1,324 were removed to hospital. The case-rate was 9,462, in place of 17,440 for the preceding year, and 2,837 in 1921. For a number of years the disease has been most prevalent during the spring and early summer months, while in 1923 its occurrence began in the autumn and increased rapidly before the end of the year, thus returning to the winter maximum which was a feature of the disease in pre-war years.

The mortality was also considerably less, there being 560 deaths, which is equivalent to 514 per million of the population, compared with 1,190 for the preceding year. The number of cases occurring is given in Appendix Table XVIII, while the death-rates are contained in Table VIII.

For several periods the death-rate has been as follows:—

1881-90, ...	·680 per 1,000	1916-20, ...	·389 per 1,000
1891-1900, ...	·784 ,,	1921, ...	·102 ,,
1901-10, ...	·573 ,,	1922, ...	1·190 ,,
1911-15, ...	·586 ,,	1923, ...	·514 ,,

WHOOPING-COUGH.

This disease was more prevalent than in the preceding year, there being 5,942 cases registered, as against 2,850 in 1922. The case-rate was consequently 4,538, in comparison with 2,634 for the preceding year. The mortality was also correspondingly increased, as shown in Appendix Table VIII.

The death-rate from the disease for several periods has been as follows:—

1881-90, ...	1·150	per 1,000 living.	1916-20, ...	·398	per 1,000 living.
1891-1900, ...	·879	,,	1921, ...	·642	,,
1901-10, ...	·750	,,	1922, ...	·185	,,
1911-15, ...	·620	,,	1923, ...	·342	,,

The numbers of cases and deaths registered and the death-rate per million living during the years 1911-23 are as follows:—

	Cases	Deaths	Death-rate per Million Living
1921,	10,748	690	642
1922,	2,850	200	185
1923,	5,942	372	342

The number removed to hospital is shown in Appendix Table XVII.

CHICKENPOX.

In 1923 there were recorded 5,898 cases of chickenpox, compared with 3,548 during the preceding year. Appendix Tables XVII and XVIII show the number treated in hospital and the case-rates per million respectively.

The prevalence was greatest during late spring and early summer, the highest monthly number of cases being recorded during May.

The age of highest incidence is 5 to 10, at which period more than half the cases occur.

OTHER INFECTIOUS DISEASES.

Appendix Table XVII contains a record of other infectious diseases dealt with, together with the number of each disease treated in hospital. Of these the most important are trachoma and ophthalmia neonatorum, the latter of which is dealt with under the section on Child Welfare. In footnotes, information is given as to certain special diseases which were dealt with during the year.

ANTHRAX.

Last year reference was made to the presence of anthrax bacillus on goatskin thongs used for the binding of orange boxes imported into this country, and the matter was reported to the Scottish Board of Health, with a view to it being taken up in the proper quarter. Further samples taken during the course of the present year were also found to be infected with anthrax, and the attention of the Board was again directed to the matter.

No human case of anthrax occurred during the year. The following is a summary of its occurrence in animals:—

On 30th May a bullock which had died in the Cattle Market at Moore Street was found on examination to have suffered from anthrax. It arrived on the morning of the previous day from a farm in Fifeshire, and was housed during the night in a cattle shed in the vicinity of the Market. The Medical Officer of Health, on being informed, stated that this animal was one of eight cattle sent to Glasgow from the same farm, and had been there during the past six months. No case was known to have occurred at this farm before.

At the end of October the carcase of a bullock belonging to one of the Co-operative Societies was found at Moore Street Abattoir to be affected with anthrax. On enquiry it was learned that the animal had been consigned here by a dealer in Forfarshire. The Medical Officer was advised, and he replied that the animal had been bought at the public market there, and that no source of infection could be traced.

Another bullock was reported to have died in a float in a cattle yard belonging to one of the auctioneers in premises near the cattle market. This animal was one of 120 consigned to Glasgow from Perth.

During December a pig which died suddenly in the Slaughter-house was found on examination to be suffering from anthrax.

DIARRHŒA AND ENTERITIS.

The incidence of these diseases is to a considerable extent associated with weather conditions, especially during the summer months, and the heavy rainfall during July, August, and September of 1923 is probably responsible for the low number of deaths from diarrhœa.

The following table shows the numbers of deaths at three age periods for 1923, compared with the respective numbers during the two preceding years:—

	Age in Years.			
	–1	–5	5+	Total.
1921, ...	455	135	112	702
1922, ...	248	68	62	378
1923, ...	219	65	74	358

The association of temperature with incidence of the disease is indicated in the following summary:—

	1921		1922		1923	
	Mean Temp. in Shade	Deaths under 1 Year	Mean Temp. in Shade	Deaths under 1 Year	Mean Temp. in Shade	Deaths under 1 Year
June, ...	57·2	17	58·5	22	55·0	17
July, ...	61·3	45	53·5	24	64·5	26
August, ...	59·3	101	55·5	17	57·0	31
September,	54·4	85	51·0	28	53·5	20

Fly Nuisance.—Following the custom of previous years, the weekly removal of material from all dung pits throughout the City was commenced in the month of May, and continued till September. In all 20,458 sprayings of pits were carried out, the total cost incurred amounting to £484, or an average of 5¾d. per spray.

RABIES.

No case of rabies is known to have occurred, but a number of persons bitten by dogs were reported by the police for inquiry. These are shown in relation to the season of occurrence and the severity of the bite:—

	Slight	Serious
1st quarter, ...	24	1
2nd quarter, ...	47	5
3rd quarter, ...	67	6
4th quarter, ...	41	6
	179	18
	197	

1922, ... 178. 1921, ... 194.

TROPICAL DISEASES.

After September, 1922, the Pension Authorities undertook to deal with ex-service patients at their own Boards, or in Bellahouston Hospital, when institutional treatment was found necessary.

During the year 25 cases of malaria were notified, and 6 cases of dysentery. 6 of the former and two of the latter were removed to hospital.

TRACHOMA.

During 1923, 54 notifications were received, 12 of which were duplicates, so that 42 new cases were brought to the notice of the department. Other 20 patients attended the dispensary without being notified, making 62 in all.

The places of birth of these cases were:—

Scotland, ...	46	Russia, ...	6
England, ...	1	Poland, ...	4
Ireland, ...	4	India, ...	1
			62

The age incidence and sex distribution of these were as follows:—

Age	Males	Females	Total
– 5, ...	1	0	1
– 10, ...	4	3	7
– 15, ...	6	5	11
– 20, ...	4	9	13
– 25, ...	4	1	5
– 35, ...	4	4	8
– 45, ...	4	4	8
– 55, ...	1 ...	5	6
– 65, ...	0 ...	2	2
+ 65, ...	1	0	1
	29	33	= 62

These cases have been dealt with as follows:—

Attending Corporation Dispensary, ...	31
,, Private Doctor, ...	2
Beyond the Boundary, ...	8
Not attending any Dispensary	6
Resumed School, ...	4
Sent to Charlotte Street Dispensary, ...	2
Not Trachoma, ...	6
Gone away, no address, ...	3
	62

There were admitted to hospital during the year for the first time 11 cases who could not receive the necessary treatment at the dispensary, and 26 other patients were re-admitted.

The following is a statement of the total cases on the register:—

1. *Still under Treatment—*

Corporation Dispensary, ...	196
Other Dispensaries, ...	8
Treated by Private Practitioners, ...	4
,, in Institutions, ...	7
	215

2. *Not under Treatment—*

Refused treatment or unable to attend, ...	57
Eyes stated to be well, ...	155
Not Trachoma.	128
Left City, ...	25
Removed and not found, ...	48
Living beyond the Boundary, ...	83
Dead, ...	9
	505

The Oculist to the Department submits the following observations on cases examined by him:—

Total number of cases:—

Positive, ...	28
Trachoma (?)	6
Negative, ...	23

Of the negative cases some were brought or sent by patients or their friends, and were not necessarily notified as trachoma.

(*a*) Positive cases—
Lids were expressed in 23.
The electric cautery was applied for pannus in 15.
Electrolysis was used for trichiasis in 1.

(*b*) Trachoma (?) included cases of follicular catarrh, conjunctivitis, conjunctivitis with ulcer of the cornea.

(*c*) Negative cases included cases of conjunctivitis, nebulæ, keratitis, corneal ulcer, follicular catarrh, phlyctenular ophthalmia, catarrhal ophthalmia, ophthalmia tarsi, dimness of vision, and a case requiring glasses.

In the *Lancet* of date 18th March, 1922, a report on trachoma and ophthalmia in Egypt points out that 90 per cent. of the population were infected; 1 in 82 were blind in both eyes, mostly from the infection of acute ophthalmia. In spite of the existence of 18 ophthalmia hospitals, with a staff of 32 ophthalmic surgeons, no appreciable amelioration in the condition of affairs during the decade 1907-1917 was noted.

As a disease in itself trachoma is very intractable, and tends to become recurrent and chronic; in fact, we attempt to hasten on the cicatricle chronic stage by expression of the lids.

The physical condition of the cases seen, especially that of the children, must have much to do with recovery from disease of the eyes, and it has been noticed that while the children were in Ruchill Sanatorium during the smallpox epidemic, and were getting extra feeding and more out-of-door life than is possible in Baird Street Reception House, the response to treatment was more definite.

The question of schooling for trachomatous children is one which requires attention, and has been put on one side too long. To have children playing about a ward all day without something to occupy them beyond such games as they can contrive is not good for them physically or mentally.

FOOT-AND-MOUTH DISEASE.

The widespread occurrence of foot-and-mouth disease among cattle led to a certain amount of apprehension on the part of the public as to the possibility of infection being carried by milk, especially when it became known that a number of dairy farms in the surrounding county districts were known to be affected.

These outbreaks were made the subject of special enquiry, especially when there was any suspected association with illness occurring in the district of the City where such supplies were being sold. The following is a brief summary of certain of these enquiries:—

On 6th November a general practitioner reported that he was attending two children suffering from what he suspected to be foot-and-mouth disease, and that three other families in the Dennistoun district were similarly affected. All of these were visited, when it was found that there was no history of recent illness in one of the families, but in the three others one adult and six children were found to have suffered (two of the children in August, and the others in October) from some form of stomatitis, all of whom had recovered, with the exception of one child, who had two healing vesicles on her lip.

On 12th November a further group of suspected cases in Exchange Ward was reported, which, together with a considerable number who had been treated for stomatitis at the Sick Children's Dispensary during September and October, were also enquired into. Out of 52 cases examined, 46 were found to have suffered from ordinary stomatitis of childhood, associated with teething or carious teeth, or gastric disturbances, not suggestive of foot-and-mouth disease.

In six of the cases only was there any reasonable ground for suspecting foot-and-mouth disease—namely, in one family two children, and in another two children and one adult, the sixth case being a child in a third family.

The symptoms in all these cases were more or less eruption, at first vesicular, rapidly becoming pustular, and going on to ulceration, affecting the tongue, inside of mouth, and skin of face near the mouth. In some cases there was vomiting and fever. In all these families other members of the household remained well.

Enquiry as to the presence of foot-and-mouth disease at the farms supplying milk proved negative, and in all cases the milk was pasteurised.

In all three families the butter used was said to be Danish, but on enquiry it was learnt that butter merchants in Denmark are under Government control, and all milk used in the making of it pasteurised. Considerable quantities of inferior butter, however, are imported from Latvia and Siberia.

As to the diagnosis of foot-and-mouth disease, there are in all 4 cases (1, 2, 3, and 8) in which the lesions observed resemble those described and illustrated as characteristic of foot-and-mouth disease, both in their appearance and in the distribution on the tongue, inside of mouth, lips, face, and, in cases 3 and 8 only, on the fingers. Also the fact that in one of the families two, and in another three, persons were affected at the same time, suggests an infectious condition.

But, on the other hand, cases 13, 14, 23, and 24 supply similar instances of two members of the same family being simultaneously affected by what on clinical evidence was regarded as ordinary stomatitis.

If the 4 cases mentioned were cases of foot-and-mouth disease, it is probable that butter, rather than milk, was the vehicle, but if infected butter were being imported it is likely that a larger number of cases at least suggestive of foot-and-mouth disease would have occurred.

MOSQUITOES IN GLASGOW DISTRICT.

The following notes by Dr. Gunn are based on observations made during the early summer of 1923 on the distribution of mosquitoes near Glasgow. The significance of the investigation cannot be determined at present; but if this survey is continued and the different species identified, there is just the possibility that some light may be shed on the aetiology of diseases which are at present obscure.

The search began towards the end of May, after an exceptionally cold period when bitter east winds had been prevailing for at least a week, and very little warm weather had been experienced before that; yet at this time numerous mosquito larvæ and pupæ were fished from Possil Marsh, situated to the north, and Frankfield Loch, to the east, of the City. Among the shrubbery at both places adult mosquitoes were also found. Observations were made on the development of the larvæ and pupæ, and it was found that, at ordinary room temperature, the period taken for the imago to hatch out from the pupal stage was from four to five days. No feeding experiments of any importance were carried out; and the mosquito hatched under these circumstances seemed to be rather a spiritless type.

Both culex and anopheles were identified. The culex was *Ochlerotatus nemorosus*, and the anopheline was identical in detail with *Anopheles bifurcatus*, which is a recognised carrier of malaria.

A return visit was made to these marshes towards the end of August, but no mosquito larvæ were found. Adult mosquitoes were caught to the south of the Clyde just outside the City in September, but not after that.

The survey is being continued during 1924.

SECTION V.

RESPIRATORY DISEASES.

The deaths and death-rates from respiratory diseases — including croup, but excluding pneumonia — during the years 1921-23, are as follows:—

Year	Deaths	Death rate per million
1921, ...	1,097	1,021
1922, ...	1,477	1,365
1923, ...	972	892

Pneumonia.—The Infectious Disease Regulations issued by the Board of Health in 1919 included acute primary pneumonia and acute influenzal-pneumonia as notifiable diseases. In the former group 4,346 cases were recorded, and in the latter 119 during 1923. Deaths from these diseases and other respiratory diseases show a marked decrease compared with the preceding year, when an outbreak of these diseases occurred in January and February.

The deaths and death-rates from pneumonia and influenza have been as follows:—

	Pneumonia		Influenza	
Year	Deaths	Death-rate per million	Deaths	Death rate per million
1921, ...	1,475	1,372	208	193
1922, ...	2,303	2,129	767	709
1923, ...	1,400	1,285	65	60

TUBERCULOSIS.

The chart which forms the frontispiece to the report shows the movement for Scotland and Glasgow since 1855.

The decrease has been fairly continuous since the early 70's, although during recent years the curve tends to flatten out somewhat. How much this is due to the larger number of cases induced or aggravated by war service is not at the moment clear, although the stringency of medical examination during the war years probably disclosed more disease than would have been recognised during peace.

In 1921 the death-rate from pulmonary tuberculosis was 1,007 per million, in 1922 it was 1,074, and in 1923, 1,014.

The following summary shows the rates since 1881 :—

1881-90, -	2·680 per 1,000 living.	1916, -	1·319 per 1,000 living.
1891-1900,	2·015 ,,	1917, -	1·271 ,,
1901-1910,	1·533 ,,	1918, -	1·245 ,,
1911, -	1·305 ,,	1919, -	1·057 ,,
1912, -	1·318 ,,	1920, -	1·062 ,,
1913, -	1·412 ,,	1921, -	1·007 ,,
1914, -	1·310 ,,	1922, -	1·074 ,,
1915, -	1·386 ,,	1923, -	1·014 ,,

The death-rates of several larger towns shown in the table which follows are all considerably lower since 1918:—

PHTHISIS DEATH-RATE PER 100,000 IN CERTAIN TOWNS.

	1918	1919	1920	1921	1922	1923
Glasgow, ...	**125**	**106**	**106**	**101**	**107**	**101**
Edinburgh, ...	96	95	85	91	87	93
Dundee, ...	141	89	99	100	98	96
Aberdeen, ...	111	86	93	91	88	81
London, ...	178	122	106	107	108	94
Liverpool, ...	208	145	141	127	140	125
Manchester, ...	180	133	117	130	127	125
Birmingham, ...	135	116	95	97	97	92

PULMONARY TUBERCULOSIS.

Summary of cases as at 31st December, 1923 :—

Total cases registered from 1st January, 1910, to 31st December, 1923, ...		33,557
Less—Died, ...	17,879	
(1) Verified on notification, but subsequently—		
Removed and not traced, ...	2,467	
Removed from Glasgow, ...	2,245	
(2) Not discovered on notification :—		
Not found at address given, ...	1,060	
Notified from Poor Law Institution (with no fixed abode), but still remaining on Register, ...	771	
(3) Subsequently taken off registers as not suffering from pulmonary tuberculosis,	2,931	
		27,353
Total cases under observation at 31st December, 1923,		6,204

Along with the diminution in the death-rate, the number of cases registered, while varying from year to year, also shows a downward tendency, the number recorded in 1923 having been 1,725, compared with 1,954 in 1922, 2,045 in 1921, and 2,240 in 1920.

Year	Cases Registered	Year	Cases Registered
1910, ...	3,506	1917, ...	2,682
1911, ...	2,326	1918, ...	2,513
1912, ...	2,340	1919, ...	2,099
From added area,	335	1920, ...	2,240
1913, ...	2,534	1921, ...	2,045
1914, ...	2,410	1922, ...	1,954
1915, ...	2,332	1923, ...	1,725
1916	2,516		

Cases registered during 1923.—As shown above, the number of cases registered during 1923 was 1,725. Of these, 1,622 were notified in terms of the Infectious Diseases (Notification) Act, 1889, and Tuberculosis Regulations, 1912. 18 were sent by the Pensions and Military Authorities, while 85 were ascertained from other sources, as shown below:—

Source of Notified Cases:—

1. Occurring in private practice, ...			1,025
2. Occurring in public practice:—			
(*a*) Poor Law cases at home addresses, ...	83		
Poor Law cases from hospitals and poorhouses, ...	78		
Poor Law cases at dispensaries, ...	19		
		180	
(*b*) Charitable dispensaries and infirmaries,	167		
Corporation dispensaries, ...	194		
		361	
			541
(*c*) School Medical Officers, ...		20	
(*d*) Port Local Authority, ...		5	
(*e*) County Medical Officer, ...		31	
			56
Total cases notified, ...			1,622
3. *Cases not notified but ascertained*:—			
(*a*) From admission and dismissal sheets of Poor Law Institutions, ...		12	
(*b*) From death cards only, ...		73	
			85
4. *From Pensions and Military Authorities*, ...			18
Total cases registered, ...			1,725

Cases among Registered Deaths.—In cases where the first information regarding the occurrence of the disease was obtained from the Death Registers, inquiry was made at the medical practitioner certifying the death regarding the omission to notify, and the explanation given in the majority of cases was that the doctor certifying the death had only seen the patient a day or two before death, and had reason to believe that notification had already been made from some other source. The omissions to notify during 1910 numbered 189, but fell to 80 during 1911 and to 35 during 1912. In 1913 they numbered 44, in 1921 they numbered 75, 110 in 1922, and 73 in 1923, or 4·2 per cent. of the total cases occurring in the latter year.

Place of Residence at Time of Registration.—When a patient is notified from a home address this is visited, and if the case can be definitely located the patient is regarded as a "Home" case, even although at the time of notification he is under treatment in an institution. The results of these inquiries may be summarised as follows:—

Cases traced to home addresses, ...	1,640
Cases at home, but not visited at request of medical attendant, ...	46
Cases where only known address was an institution, ...	37
Cases not found at address given, ...	2
	1,725

Private and Public Notifications.—The figures given in the foregoing summary refer to the total number of cases registered during the year, while the following table refers only to notifications under the Act received regarding the 1,566 cases so notified:—

Notifications	Private	Public	Total	Percentage Public
Primary, ...	1,025	541	1,566	52·8
Multiple, ...	199	92	291	46·2
	1,224	633	1,857	51·7
Percentage multiple to primary notifications in each group, ...		19·4	17	18·5

Age Distribution of Cases Registered.—This information is given for each of the three years ending 1923, in the following table:—

	1921		1922		1923	
Age	M.	F.	M.	F.	M.	F.
– 5 years, -	53	48	43	42	41	33
– 10 ,, -	74	91	56	44	46	51
– 15 ,, -	68	81	56	74	38	68
– 20 ,,	100	110	110	109	85	111
– 25 ,, -	147	152	111	134	122	127
– 35 ,, -	224	220	250	212	182	191
– 45 ,, -	196	137	185	132	141	125
– 55 ,, -	130	69	165	92	146	77
– 65 ,, -	82	36	76	18	79	27
Over 65 years,	18	9	37	8	21	14
Total, -	1,092	953	1,089	865	901	824
Grand Total, -	2,045		1,954		1,725	

Housing Accommodation of Patients. — The following table gives the house accommodation at the date of registration of such patients as had home addresses. Patients who were in institutions (mostly Poor Law) at the time of notification are included along with those who could not be traced at the addresses given:—

	1921		1922		1923	
	M.	F.	M.	F.	M.	F.
1 Apartment, ...	167	194	183	172	130	161
2 ,, ...	541	514	492	450	458	448
3 ,, ...	185	152	176	136	167	119
4 ,, and up, ...	92	59	105	76	72	82
In Institutions and not traced, ...	107	34	135	29	74	14
Total, ...	1,092	953	1,091	863	901	824
Grand Total, ...	2,045		1,954		1,725	

Institutional Treatment.—The following table shows admissions to institutions of patients suffering from pulmonary tuberculosis during the years 1914-1923:—

Year	Local Authority Hospitals	Sanatoria	Poor Law Institutions	Total
1914, ...	645	370	675	1,690
1915, ...	1,250	562	880	2,692
1916, ...	1,233	667	892	2,792
1917, ...	1.144	616	809	2,569
1918, ...	986	561	671	2,218
1919, ...	948	501	609	2,058
1920, ...	1,731	739	630	3,100
1921, ...	1,904	725	658	3,287
1922, ...	2,018	714	604	3.336
1923, ...	1,959	690	555	3,204

Dispensary Attendances. — The following table shows the attendances and consultations at the various tuberculosis dispensaries in each year, 1921 to 1923. All forms of tuberculosis are included: —

Dispensary	Number of Consultations	Primary Attendances		Subsequent Attendances	
		Males	Females	Males	Females
Year 1921, ...	1,299	2,542		57,825	
„ 1922, ...	1,269	2,376		52,215	
1923.					
Brown Street,	298	259	251	9,267	6,942
Black Street,	248	238	234	5,069	5,168
Central Area,	156	129	135	2,742	2,220
Granville Street,	150	119	213	3,421	2,250
Adelphi Street.	253	168	121	3,825	2,389
Govan, ...	161	195	155	3,942	3,026
Total, ...	1,266	1,108	1,109	28,266	21,995
		2,217		50,261	

Home Visitation by Nurses.—The number of home visits by nurses has been as follows during the past three years: —

Number of Visits made.

1921	1922	1923
40,461	53,309	52,228

Issue of Medical Extras, Beds and Bedding, &c., to Patients under treatment at home.—In 1916 the Local Authority was granted power to provide assistance in the domiciliary treatment of patients in the form of extra nourishment, and bed and bedding in necessitous cases. The following table shows the number in each year since 1916 in respect of whom such assistance was given. Extra nourishment takes the form of two pints of milk and one egg per day: —

Year	Medical Extras	Bed and Bedding
1916, ...	100	61
1917, ...	180	30
1918, ...	202	40
1919, ...	153	45
1920, ...	187	24
1921, ...	184	31
1922, ...	66	35
1923, ...	99	26

Issues of this nature are only granted after full inquiry, and in cases where the home circumstances are reasonably satisfactory. They are not regarded in any sense as a measure of out-relief, which is always readily granted by the Poor Law Authorities when required.

Issue of Clothing to Patients.—In 1916 the National Association for the Prevention of Consumption agreed, on the suggestion of the Committee on Tuberculosis, to make the interest on the purchase price of Bellefield Sanatorium the basis of a fund out of which to provide clothing for patients going to Sanatoria. This amounts to about £400 per annum, and has enabled the Tuberculosis Department to meet a very real want, as many patients are poorly clad and unable to make the journey to sanatoria, especially in winter. In 1916, 148 patients; in 1917, 138 patients; in 1918, 161 patients; in 1919, 225 patients; in 1920, 119 patients; in 1921, 107 patients; in 1922, 164 patients; and in 1923, 276 patients were provided with various articles of clothing in accordance with the above scheme.

NON-PULMONARY TUBERCULOSIS.

Tuberculosis in all its forms became compulsorily notifiable on 1st July, 1914. The subjoined table gives the number of cases of non-pulmonary tuberculosis registered during subsequent years:—

Year	Cases Registered	Year	Cases Registered
1914, ...	1,142	1919, ...	1,207
1915, ...	1,464	1920, ...	1,185
1916, ...	1,502	1921, ...	1,141
1917, ...	1,493	1922, ...	1,050
1918, ...	1,412	1923, ...	1,234

The following table shows (1) the distribution of the cases registered in each year in accordance with the location of the disease and sex of the patient; and (2) distribution according to certain age periods in each year:—

TABLE SHOWING NON-PULMONARY TUBERCULOSIS CASES REGISTERED DURING 1914–1923, WITH LOCATION OF DISEASE AND SEX.

Year	Glands		Bones and Joints		Abdomen		Meninges		Multiple		Others		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1914,* ...	159	153	239	186	79	45	73	47	11	18	70	62	631	511
1915, ...	176	232	192	156	135	104	137	123	52	27	71	59	763	701
1916, ...	199	216	185	138	155	136	136	140	40	18	75	64	790	712
1917, ...	203	266	196	170	155	113	93	95	41	34	70	57	758	735
1918, ...	186	265	158	143	119	128	92	107	34	30	78	72	667	745
1919, ...	138	178	164	127	126	123	93	86	40	29	56	47	617	590
1920, ...	138	145	193	168	116	112	89	83	39	29	44	29	619	566
1921, ...	149	171	165	127	116	84	78	74	27	29	68	53	603	538
1922, ...	134	147	141	124	130	111	75	66	20	24	42	36	542	508
1923, ...	145	155	181	129	145	118	102	75	16	15	78	75	667	567
Total, ...	1,627	1,928	1,814	1,468	1,276	1,074	968	896	320	253	652	554	6,657	6,173
Grand Total,	3,555		3,282		2,350		1,864		573		1,206		12,830	

* Figures for six months ending 31st December, 1914.

Age Distribution of Non-Pulmonary Tuberculosis Cases registered during each Year, since commencement of Notification on 1st July, 1914.

Year	Under 1 year		1-5 years		5-10 years		10-15 years		Over 15 years		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1914, ...	60	21	132	90	140	102	134	115	165	183	631	511
1915, ...	59	49	236	161	164	140	112	108	192	243	763	701
1916, ...	64	45	244	152	149	123	108	164	225	228	790	712
1917, ...	52	48	190	134	157	156	117	149	242	248	758	735
1918, ...	30	33	163	169	137	125	129	142	208	276	667	745
1919, ...	45	28	151	109	142	123	78	136	201	194	617	590
1920, ...	57	35	143	122	128	137	110	94	181	178	619	566
1921, ...	51	35	157	111	133	122	81	94	181	176	603	538
1922, ...	38	28	175	150	103	87	71	79	155	164	542	508
1923, ...	59	19	214	165	116	112	86	79	192	192	667	567
Total, ...	515	341	1,805	1,363	1,369	1,227	1,026	1,160	1,942	2,082	6,657	6,173
Grand Total, ...	856		3,168		2,596		2,186		4,024		12,830	

The following table shows admission to institutions of patients suffering from non-pulmonary tuberculosis during the years 1915-1923:—

Year	Local Authority Hospitals	Sanatoria	Poor Law Institutions	Total
1915, ...	10	7	—	17
1916, ...	26	16	87	129
1917, ...	76	35	187	298
1918, ...	150	69	171	390
1919, ...	264	88	186	538
1920, ...	566	68	136	770
1921, ...	764	70	185	1,019
1922, ...	789	64	205	1,058
1923, ...	764	42	198	1,004

SECTION VI.

VENEREAL DISEASE.

No alterations have been made in the scheme since the previous report was issued.

During the year premises at 188 Broomielaw, adjoining the existing centre, became vacant and were taken over by the Corporation. This permitted the carrying out of alterations which have greatly increased the facilities at this centre, both from the standpoint of the patients and of the staff. The waiting-room accommodation is now sufficient, a new lavage trough has been installed, dressing cubicles have been fitted, and the consultation room is now well lighted and ventilated.

The Managers of the Royal Infirmary have not proceeded with the alterations mentioned as required in preceding reports, and this centre remains far removed from the ideal. The waiting-room accommodation is quite inadequate, and the hours of the clinics seriously interfere with the attendance of patients who are working through the day. No clinic which does not have evening sessions can be satisfactory, and it is a common experience to meet patients at other clinics, having found the hours at the Royal Infirmary unsuitable.

No provision has been made at the Western Infirmary for the treatment of male sufferers from gonorrhœa, and in this respect the centre is not complete. The interest shown in the welfare of the patients at this centre makes this defect the more regrettable.

The centre opened last year at Bellahouston Dispensary is doing good work in both sexes. The four beds for female patients have been occupied by 32 patients on 1,099 days, and 191 females were treated at the out-patient department. At the male clinic, which is solely for out-patients, 213 new cases were treated. The waiting-room accommodation for male patients has proved inadequate, and the premises are not adaptable for extending such provisions. This problem is engaging attention at present.

The labour room at the Women's Hospital has been improved by various alterations. The importance of thorough treatment of pregnant women suffering from Venereal Diseases is now better recognised by the medical profession generally, and 49 such cases were treated indoor at this centre during the year, resulting in the birth of 38 healthy children. Treatment was commenced too late in 11 cases to ensure freedom from disease in the offspring, and in three cases the child was still-born.

The special clinics at the Royal Hospital for Sick Children and the Eye Infirmary continue to do useful work, although in both cases special circumstances attached to the type of case treated render the end-results of treatment rather disheartening. The Children's Hospital treats chiefly congenital cases, the results of the mother not receiving adequate treatment during pregnancy, while the cases at the Eye Infirmary are mainly sufferers from congenital disease and those suffering from the late manifestations of Venereal Diseases. Both of these conditions are most difficult, in fact, nearly impossible to cure.

Certain facts relating to the centre at Baird Street Reception House will be referred to later in a detailed scrutiny of the work done there.

WORK OF THE CENTRES.

The following is a summary of the returns made by the various centres during the year, and of the pathological examinations performed in connection with each centre:—

TABI

PATIENTS TREATED AT THE SEVER

	Royal Infirmary	Western Infirmary		Victoria Infirmary	
	M.	M.	F.	M.	F.
IN-PATIENTS—					
New cases suffering from—					
Syphilis,	69	26	11	9	4
Soft Chancre,	9	—	—	—	—
Gonorrhœa,	58	—	—	1	—
Syphilis and Soft Chancre,	1	—	—	—	—
Syphilis and Gonorrhœa,	18	—	—	—	—
Gonorrhœa and Soft Chancre,	2	—	—	—	—
Syphilis, Gonorrhœa, and Soft Chancre,	—	—	—	—	—
Balanitis,	18	—	—	—	—
Venereal Warts,	4	—	—	—	—
Stricture,	13	—	—	—	—
Paraphimosis,	1	—	—	—	—
Conditions other than Venereal,	—	—	—	—	—
Total,	193	26	11	10	4
		37		14	
Aggregate Days' Residence,	4,887	1,030	541	163	42
		1,571		205	
Average Days' Residence,	25·3	42·5		14·6	
OUT-PATIENTS—					
New cases suffering from—					
Syphilis,	485	171	74	12	29
Soft Chancre,	105	3	—	—	—
Gonorrhœa,	954	4	24	—	—
Syphilis and Soft Chancre,	1	5	—	—	—
Syphilis and Gonorrhœa,	62	—	8	—	—
Gonorrhœa and Soft Chancre,	22	—	—	—	—
Syphilis, Gonorrhœa, and Soft Chancre,	—	—	—	—	—
Balanitis,	105	—	—	—	—
Venereal Warts,	23	—	—	—	—
Stricture,	56	—	—	—	—
Paraphimosis,	1	—	—	—	—
Conditions other than Venereal,	51	27	7	—	—
Total,	1,865	210	113	12	29
		323		41	
Aggregate Attendances,	39,358	4,519	4,630	279	497
		9,149		776	
Average Attendance,	21·1	28·3		18·9	
PATHOLOGICAL EXAMINATIONS, 1923—					
Wassermann Reactions—Blood,	1,790	1,195		516	
Do. —Cerebro-Spinal Fluid.	—	107		11	
Spirochætes,	127	4		—	
Gonococci,	202	136		35	
Totals,	2,119	1,442		562	

* At Pu

NTRES DURING THE YEAR 1923.

Bellahouston Dispensary M.	Bellahouston Dispensary F.	Lock Hospital Ad.	Lock Hospital Ch.	Broomielaw M.	Baird Street Reception House Ad.	Baird Street Reception House Ch.	Sick Children's Hospital M.	Sick Children's Hospital F. Ad.	Sick Children's Hospital Ch.	Eye Infirmary M.	Eye Infirmary F.	Total
—	9	51	98	—	—	8	9	—	8	15	15	332
—	—	—	—	—	—	—	—	—	—	—	—	9
—	19	156	27	—	—	14	—	—	—	1	1	277
—	1	—	—	—	—	—	—	—	—	—	—	2
—	3	157	2	—	—	3	—	—	—	—	—	183
—	—	1	—	—	—	—	—	—	—	—	—	3
—	—	2	—	—	—	—	—	—	—	—	—	2
—	—	—	—	—	—	—	—	—	—	—	—	18
—	—	—	—	—	—	—	—	—	—	—	—	4
—	—	—	—	—	—	—	—	—	—	—	—	13
—	—	—	—	—	—	—	—	—	—	—	—	1
—	—	—	—	—	—	5	—	—	—	—	—	5
—	32	367	127	—	—	30	9	—	8	16	16	849
32		494			30		17			32		
		15,343	7,715	—			199		428	578	379	36,920
1,099		23,058			4,516		627			957		
34·3		46·7		—	150·5		36·9			29·9		43·5
80	76	183	236	204	75	49	31	27	38	119	106	1,995
4	1	—	—	13	—	—	—	—	—	—	—	126
106	54	181	21	422	42	4	—	—	—	3	—	1,815
2	—	—	—	2	—	—	—	—	—	—	—	10
5	9	123	3	9	3	—	—	—	—	—	—	222
—	—	2	—	—	—	—	—	—	—	—	—	24
—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	—	—	19	—	—	—	—	—	—	—	125
1	—	—	—	5	—	—	—	—	—	—	—	29
1	—	—	—	8	—	—	—	—	—	—	—	65
—	—	—	—	—	—	—	—	—	—	—	—	1
13	51	9	13	63	80	65	—	—	—	3	—	382
213	191	498	273	745	200	118	31	27	38	125	106	4,794
404		771			318		96			231		
927	2,932	18,001	2,730	27,829	1,157	658	410	582	471	1,823	1,633	116,436
11,859		20,731			1,815		1,463			3,456		
29·3		26·9		37·4	5·7		15·2			15·0		24·3
423		*2,009		*463	*321		*614			*1,264		8,595
33		*28		*21	*1		*10			*16		227
37		90		103	—		—			—		361
308		6,456		485	280		—			1		7,903
801		8,583		1,072	602		624			1,281		17,086

lth Laboratory.

The total number of new cases treated at the centres during the year was 5,643, as compared with 5,858 in 1922, a decrease of 215.

Excluding in both years the cases found not to be suffering from Venereal Disease, there is an actual decrease of 398 known sufferers presenting themselves for the first time in 1923, as compared with 1922. This decrease following upon that of last year warrants the belief that the organised campaign against Venereal Diseases is now causing a lessened prevalence of these diseases. There can be no doubt that each case cured or rendered non-infective is one potential source of infection removed, and it is probable that it is due to this reason that the incidence of Venereal Diseases is on the decline in this City.

There is no reason to suspect that a smaller proportion of infected people seek treatment at the centres now than during the four years since the scheme came into operation.

Any early reduction in numbers due to fewer sources of infection would be shown in the early acute stages, and a scrutiny of the figures of the centres treating such cases, show that 239 fewer new cases have attended these centres in 1923 than in 1922.

Another fact which strengthens this hypothesis is the reduction shown in the number of fresh cases of syphilis. The modern methods of treatment of syphilis quickly render a patient non-infective, and, as said above, reduce the likely sources of infection. There have been 410 fewer cases of uncomplicated syphilis treated, while the figures relating to gonorrhœa alone show an increase of 175 new cases.

The returns from the centres still show the anomaly that fewer cases of gonorrhœa than of syphilis seek treatment at the centres, but it should be recognised that the majority of the gonorrhœa cases are recent infections, while many cases of congenital syphilis and of the later manifestations of syphilis are shown under that heading.

The accepted ratio of three to four cases of gonorrhœa to one of syphilis refers to newly-acquired infections, and it may be that a larger proportion of the actual cases of gonorrhœa seek treatment at the centres than has hitherto been believed.

Of the increase of 175 cases of gonorrhœa in 1923 over 1922, no fewer than 123 are of adult females. Gonorrhœa in the adult female is a disease which is frequently not recognised, and any increase in the numbers of such cases seeking treatment is an indication for increased confidence in the present scheme.

Gonorrhœa for several reasons presents a much more difficult problem than syphilis does. There is a definite specific for the latter disease, and the standard of cure is a definite one. Neither of these factors applies to gonorrhœa, and this, along with the negligence with which the average individual regards the disease, constitutes it the most difficult problem in the Venereal Disease campaign. Not until the community are made to realise the disastrous results which may follow an incompletely treated case of gonorrhœa, will the present system prove satisfactory.

It can be said that the scheme, as now operating, is satisfactory as regards syphilis, but only partially successful as regards gonorrhœa.

A comparative survey of the work done at the various centres shows that the number of new cases presenting themselves at the Bellahouston, Broomielaw, and Glasgow Eye Infirmary Dispensaries have increased from the previous year, while the figures for the Women's Hospital and Baird Street Reception House remain much as before.

All the other centres show a marked falling off in the number of new cases, the decrease at the Royal Infirmary amounting to over 500. Undoubtedly, the centres at Broomielaw and the Bellahouston Dispensary cater more adequately for the man who is at daily work than that at the Royal Infirmary.

It is noteworthy, however, that the *ad hoc* centres show no falling off in their patients while the centres which are in association with other institutions show a definite decrease in numbers. It is probable that the beliefs which led to the majority of centres being established in existing and well-known medical institutions, were wrong.

The ideal centre is one where the patient can obtain medical advice and treatment at any hour of the day which suits him, and that without any unnecessary loss of time.

Such conditions can obtain at an *ad hoc* centre under the control of the Local Authority, and this would appear to be the ideal to aim for in establishing any future clinic.

The average attendance for out-patients has again shown an increase and was 24·3 as against 20 in 1922. Each centre, with the exception of Baird Street, shows increase.

The general practitioners in the City are now taking an increasing part in treating syphilis as evidenced by the fact that 42 practitioners received 1,276 doses of salvarsan substitutes during the year under the part of the scheme which permits the Local Authority to issue such substitutes free to practitioners for the treatment of patients who are unable to pay for the drug.

RESULTS OF TREATMENT.

The following figures are taken from the returns for the year ended 31st May, 1923, submitted by the centres to the Scottish Board of Health:—

TABLE II.

	Syphilis		Gonorrhœa		Soft Chancre		Mixed Infections		Conditions other than Venereal		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total Number of Persons under treatment—												
From 1922, ...	1,270	975	687	186	215	—	144	468	—	3	2,316	1,632
During 1923, ...	1,590	1,155	1,588	468	208	—	244	355	201	156	3,831	2,134
Total, ...	2,860	2,130	2,275	654	423	—	388	823	201	159	6,147	3,766
Percentage of above who ceased to attend—												
(*a*) Before completing course of treatment for	17·2	17·2	16·4	11·0	5·4	—	18·0	3·9	—	—	16·1	13·1
(*b*) After completing a course of treatment but before final tests as to cure of ...	17·1	14·5	22·1	19·4	14·4	—	17·5	13·6	—	—	18·8	15·2
Percentage of above transferred to other centres after treatment for	3·6	0·8	1·9	1·7	—	—	1·0	0·5	—	—	2·5	0·8
Percentage of above discharged from the centre after completion of treatment and observation for ...	14·8	12·8	36·0	47·9	67·8	—	18·3	37·8	—	—	27·0	24·9
Percentage of above who, at the end of the year, were under treatment or observation for	47·4	54·6	23·5	20·0	12·3	—	45·1	44·2	—	—	35·5	46·0

In actual numbers, 1,601 males and 897 females suffering from Venereal Diseases were discharged from the centres after completion of treatment, and observation for cure of the disease. 696 of these had suffered from syphilis, 1,133 from gonorrhœa, and 382 from mixed infections.

It is interesting to note that the centres treating chiefly congenital syphilis and the later manifestations of syphilis, discharged few cases under this heading. The Royal Hospital for Sick Children discharged thus 36 patients, Baird Street discharged 27, and the Eye Infirmary Dispensary discharged no patients as cured.

1,431 patients stopped attending the centres before they completed a single course of treatment, and 1,668 ceased attending after receiving a course of treatment, but before any tests were carried out to determine whether cure had been obtained.

The reservations which should be placed upon the percentages in the above table were referred to in last year's report, and the actual figures give a clearer indication of what is happening at the centres.

This return of the centres also showed that 818 cases of congenital syphilis received treatment during the year which ended 31st May, 1923. Reference has been made in previous reports to the excellent results obtained by proper ante-natal treatment of infected mothers, and it is disheartening to find that a continuation of the present conditions may be anticipated unless some steps are taken to ensure that known sufferers from Venereal Diseases are properly treated whether they wish it or not.

A close scrutiny of the case sheets of patients attending Baird Street Reception House centre has revealed certain disquietening facts, although it must be remembered that this centre treats a certain number of patients living outwith the City, to whom the necessary travelling is a difficulty. This, together with the fact that the majority of the syphilitic adults attending this centre show no gross evidence of the disease, has caused the average attendance per patient to be much lower than that of any of the other centres.

It is to be noted that of 338 new out-patients attending this centre 145, or 43 per cent. proved not to be suffering from Venereal Disease. This high figure is an index of the close co-operation between the Child Welfare Centres and this clinic, as the Medical Officers of the former centres refer most of their doubtful cases to Baird Street for an opinion as to diagnosis.

But it is when the case records of infected mothers attending with children are studied that the necessity for further powers to deal with such cases becomes apparent.

The following table shows the number of mothers, with children, and the occasions they attended for treatment: —

Number of Attendances,	1	2	3	4	6	7	8	9	10	13	15	16	21	30
Number of Mothers,	13	5	2	1	3	1	3	1	3	1	1	1	1	1

Of the 13 mothers attending on one occasion 11 of the children only attended once, and the other two on ten and seven occasions respectively. Five mothers attended with their children for treatment on two occasions, then all trace of them was lost. The other mothers brought their children on each occasion when they attended, but it is obvious that in many cases the treatment could not bring about a cure, as congenital syphilis necessitates a prolonged course of treatment.

The practice at this centre when a patient ceases to attend, is to write a non-committal letter on plain paper asking the patient to call to see the doctor. This step meets with a certain amount of success, but in many cases no more is heard of the patient and the figures given above, all relating to definite syphilitic cases, show that the treatment given to many cases can have done no good whatever.

AGE-INCIDENCE OF NEW CASES.

The following table, compiled from the information contained in the Form V.R.I returns for the year ended 31st May, 1923, is shown for comparison with that of last year.

The cases treated according to age of patient were: —

	Syphilis		Gonorrhœa		Soft Chancre		Mixed Infections		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 year, ...	101	168	1	7	—	—	—	—	102	175
1 year and under 5 years, ...	33	130	1	29	—	—	—	—	34	159
5 years and under 15 years,	55	207	1	83	—	—	—	19	56	309
15 years and under 25 years,	1033	244	1279	151	121	—	180	198	2613	593
25 years and upwards, ...	1365	600	811	217	291	—	159	176	2626	993
Totals, ...	2587	1349	2093	487	412	—	339	393	5431	2229

This table shows again many more females than males under 15 years suffering from syphilis, there being 505 of the former to 189 of the latter.

In all 835 cases of Venereal Disease were of children under 15 years of age.

SECTION VII

HOSPITALS.

Knightswood Hospital. — During the year the six new pavilions which have been added to Knightswood Hospital were opened for the admission of patients, and the total accommodation there and at the other hospitals is contained in Appendix Table XX.

Owing to the condition of the roofs, drainage, &c., of the three existing pavilions it was decided to close them for a time in order to carry out the necessary repairs and other suggested alterations.

Robroyston Hospital.—The treatment of considerable numbers of non-pulmonary forms of tuberculosis in young children at Robroyston Hospital made it advisable to provide facilities for the education of these children during their prolonged stay in hospital. For this purpose one of the wooden huts in the Auxiliary Hospital was set apart, and the Education Authorities made arrangements to provide teachers for the classes arranged.

The accommodation in the ward proving not quite suitable, the Committee decided to erect a separate building with two class-rooms and other facilities, with a verandah, as described in the following report. The committee recommended, however, that the school-rooms to be erected be utilised also as a recreation room.

Tentative arrangements have also been made to provide a dental service for the patients.

ROBROYSTON HOSPITAL SCHOOL BUILDING.

The plan of the proposed school is designed to suit the educational requirements of the children at Robroyston. It contains two schoolrooms, with lavatory and cloakroom accommodation for male and female pupils respectively, and also a room and lavatory accommodation for the teaching staff (one sex).

It is proposed to continue the present system of education whereby the scholars are taught in two separate classes, each having two sessions per day. In order to allow for reasonable elasticity in the accommodation, the individual schoolrooms have been designed to accommodate a maximum of 30 scholars in each class, which will allow of the maximum attendance of 60 children. It is unlikely that this maximum will be exceeded.

The new building will be situated on the open ground to the north of No. 1 Pavilion, well detached from the hospital buildings.

The whole building has a southern exposure, and consists of two schoolrooms, each with a floor area measuring 20 feet by 30 feet, with a height to the wall-head of 11 feet. These rooms will be separated by a movable partition. The front wall is fitted with triple-leaf folding doors which can be completely opened, while the back wall consists of a series of pivoted windows with hopper ventilators above. The verandah in front is 16 feet broad, and is of sufficient size to enable the classes to be taught completely in the open air. A glass verandah roof, 4 feet broad, has been added, in order to afford some protection to the classrooms from driving rain while the folding doors remain open.

Two separate cloakrooms are shown on the plan, one for boys and the other for girls, while to the east is situated the teacher's room, with lavatory and water-closet accommodation.

The building will be entirely constructed of wood, and will be heated by steam radiators.

It is proposed to utilise the building, in so far as its size will permit, for entertainment and concert purposes at suitable times for the patients generally.

The plan has been submitted to and approved by the Education Authority, who are of opinion that the roof of the verandah should project further to afford the necessary protection to the children during wet weather when the doors are open. Our view is that the 4-foot verandah as provided should be adopted experimentally.

Bellefield Sanatorium.—In the Annual Report for 1921 there was included a memorandum on the alteration of existing buildings and the proposed extension of accommodation for patients at this sanatorium. Certain amendments on the original plans have been deemed desirable, and these are described in the following reports:—

BELLEFIELD SANATORIUM EXTENSION.

(*A*) Rearrangement of the Administrative Block.

The plans now submitted have been prepared to give effect to certain suggested rearrangements and improvements in the administrative block, in accordance with the minute of the Sub-Committee on Tuberculosis, of 17th August, 1923 (Print No. 23, page 2170), and are intended to replace those formerly submitted to the Board as part of the first scheme of extension of the sanatorium. To make these new proposals clear, a plan of the existing administrative block is also forwarded.

The object of these alterations is to provide more convenient dining-room accommodation for the nurses and maids, and the previously proposed alterations to the block have been remodelled in order to provide a better and more direct service from the kitchen.

The new plan also effects a rearrangement of the accommodation for the medical staff and matron, so as to allow a greater degree of privacy than was formerly provided. This rearrangement has been effected with less external building.

The previous arrangement of building bedrooms for maids on the top of the laundry would have had the effect of putting the laundry temporarily out of action, and provision has now been found for these bedrooms in a new roof over the existing maids' bedrooms.

The omission of a maids' sitting-room from the previous plans has now been remedied by the adaptation of a portion of the centre of the administrative block. To give effect to these rearrangements alternative accommodation for six nurses so displaced is provided in an additional roof storey to the new nurses' wing. Considerable improvements in administration will result from these alterations; for instance, the nurses' and maids' sleeping accommodation is now quite detached from the other administrative quarters. Their dining-room accommodation is now convenient of access from the kitchen. The quarters for the medical staff and matron are now independent and more suitable, and interference with the laundry during the course of reconstruction has been obviated.

The storage arrangements under the former scheme, which were inconvenient and scattered, have been interfered with by the arrangements above described, and advantage has been taken of this to provide a new stores block, which will also obviate the necessity for building the additional storey to the mortuary and laundry receiving block, as shown in the accompanying plan. A garage for one car is also included.

The original plan of the administrative block as previously submitted has thus been altered in the following particulars:—

1. *Medical Staff and Matron* (*Plan* 29 *f*).—On the ground flat the nurses' dining-room will now be used as a combined sitting-room and dining-room for the medical staff. The present Medical Superintendent's sitting-room becomes his bedroom, the doctors' dining-room becomes a general reception room, while opposite this the matron's office remains as previously designed, the bedroom for the assistant medical officer being removed to the upper storey. The upper flat (Plan 28 *b*) will now contain the matron's sitting-room, the nurses' recreation room, as in the previous plan, while the two nurses' bedrooms to the front will be converted into the matron's bedroom, with lavatory accommodation attached.

The effect of these rearrangements will be to obviate the necessity for building the additional wing to this block, which contained the Superintendent's and matron's bedroom and bathroom, a small addition for one bathroom on the ground floor being alone necessary.

2. In the central portion of the administrative block (Plan 29 *f*) the principal alteration has been the provision of a nurses' dining-room, 18 feet by 24 feet, with cloak-room and lavatory attached, and an external entrance. The maids' dining-room remains as originally planned. Between these two, an apartment at present used as a store has been adapted as a joint servery. In front a separate entrance has been provided for the maids, with cloakroom and lavatory accommodation attached. The two existing small stores, which are at present quite dark, now become a pantry. The larder, meat and

vegetable stores have been reduced in size, so as to increase the breadth of the passage between kitchen and servery (Plan 28 *b*). On the upper floor of this portion of the block a sitting-room for maids is provided by displacement of two nurses' bedrooms (Plan 28 *b*.) The new attic, designed to accommodate four double maids' rooms, with linen store, is shown on Plan 21 *b*; this takes the place of the former proposal to provide for this addition by a storey over the laundry.

3. *Nurses' Wing*.—The principal alteration here is the addition of a third storey (Plan 28 *b*), to contain six additional bedrooms for nurses displaced as previously described. This flat also contains linen and box-room accommodation. Opportunity has also been taken to effect a slight rearrangement on the ground floor, so as to give suitable external access to the nursing staff to and from wards and dining-room.

4. *New Stores Block*.—The alterations to the main administrative block above described render the provision of new storage accommodation essential. The details of the proposed building are shown on the two plans numbered 24 B. It replaces the scattered and unsatisfactory accommodation in the main building, and also takes the place of the clothing store and sewing-room previously designed as an addition to the laundry block. It is a two-storey building of simple design, containing grocery and dry store, with office on the ground flat and storage for clothing, &c., along with a sewing-room on the upper flat.

The selection of a site for this building has been a matter of difficulty, as there is not sufficient suitable ground close to the administrative block. The best position for this block is that shown in Ground Plan No. 27 *b*, marked No. 1—a site which is, however, contingent upon the reconstruction of the existing dining-room and the ward block adjacent to it. Owing to the state in which these buildings now are, their life can be no longer preserved, and proposals for giving effect to this reconstruction, which will allow of the stores block being suitably placed as suggested, have been approved by the Corporation, and are now submitted separately for the approval of the Board.

(*B*) NEW DINING-ROOM, RECREATION ROOM, &C.

The plans herewith submitted have been prepared to show the arrangements proposed for the provision of a new dining-room and recreation room. The intention is to demolish the old temporary ward block and to replace it by a new dining-room and recreation room for patients, with relative kitchen and store accommodation. It will be remembered that when the original scheme of extension was prepared it was proposed to extend the old dining-room and to leave the ward block standing, the provision of a recreation room being left over for inclusion in a scheme such as that now proposed. As this old ward, which is of temporary construction, and contains 22 beds, is now in a state of considerable decay, its demolition, besides allowing for the erection of the dining and recreation rooms, will necessitate the erection of the 24-bed pavilion, as shown on the block plan, which properly belongs to the scheme for the second or final extension of the sanatorium.

The plan of this new block shows (*a*) recreation room, measuring 33 feet by 30 feet; and (*b*) dining-room, measuring 44 feet by 30 feet. These will be separated by a movable partition. The recreation room will provide for 80 patients at any one time, and the dining-room for 100 patients.

A service kitchen and dish store are provided, along with a small milk and general store and lavatory accommodation. Part of the existing building will be utilised to provide for entrance and cloak-room, &c., accommodation.

Provision is also shown for an X-ray room, which can be readily constructed in the space between the existing permanent wall and the altered existing lavatory block. A portion of the basement premises of the latter block will be used as a developing room.

10th December, 1923.

RECEPTION HOUSES.

The accommodation at Baird Street Reception House is still used for the indoor treatment of cases of ophthalmia neonatorum and nursing mothers, trachoma, and young girls suffering from venereal diseases. These are dealt with in another section of this report.

During the year 1923 only three contacts were dealt with there and the others at South York Street, as shown in the following table:—

Contacts, &c., admitted to Reception House.

South York Street	1922 Total	1923 Adults	1923 Children	1923 Total.
Smallpox, ...	1	—	—	—
Typhus Fever, ...	58	10	—	10
Enteric ,, ...	—	1	—	1
Scarlet ,, ...	2	1	2	3
Diphtheria, ...	6	—	—	—
Dysentery, ...	—	1	—	1
Measles, ...	1	—	—	—
Impetigo, ...	23	3	33	36
Verminous Persons treated,	111	177	38	215
Scabies. &c., ...	26	10	24	34
Total, ...	228	203	97	300

DISINFECTING STATIONS.

Sanitary Wash-houses.—The following table summarises the washings and disinfections carried out at Ruchill and Belvidere Sanitary Wash-houses during the year 1923:—

		Belvidere	Ruchill	Total
Number of washings, ...		7,490	6,933	14,423
Average number per day, ...		24·3	22·5	46·8
Articles washed and disinfected, ...		226,386	299,899	526,285
Average number of articles per washing,		30·2	43·3	36·5
Fuel consumed, ...	tons	563	667	1,230
Fuel used per article, ...	lbs.	5·57	4·98	5·24
Soap and powder used per article, ...	ozs.	·45	·45	·45
Disinfectant do. ...	ozs.	·53	·66	·60

Number of Washings, Articles Disinfected, &c., for Years 1919-23 inclusive.

	Washings	Articles	Sprayings	Whitewashings
1919, ...	23,150	896,801	14,675	132
1920, ...	20,543	812,796	20,155	1,499
1921. ...	18,060	655,867	19,196	21
1922, ...	14,837	533,450	9,418	21
1923, ...	14,423	526.285	8,008	2

Books Disinfected, 1,047

SECTION VIII.

OFFENSIVE TRADES.

During the year 1923 various applications were made for registration of premises for carrying on offensive trades.

Tallow Melting.

During March inquiry was made as to a license for the melting of grease in premises at Vinegar Hill, when it was discovered that this process was already being carried on by the firm in premises at another address which had formerly been licensed for the process of tallow melting and gut cleaning by another firm. The process consisted of boiling ham skins collected by hawkers from provision merchants throughout the City. This was done by steam in wooden vats, and the fat obtained stored in barrels and sold for use in the manufacture of lubricating oil.

The premises in Vinegar Hill for which license was requested consist of a one-storey brick building, roofed partly with tiles and asbestos slates, requiring repair, while the walls were in fair condition. The premises are divided into two parts, one for the storage of material, and the other for the process of manufacture. Lighting, ventilation, walls, floors, and drainage were all dealt with in accordance with the instructions of this department.

The centre portion of the building, occupied by another firm, was already licensed for the carrying on of an offensive trade, and the present applicant proposed to acquire this portion at a later date when further improvements would be made.

The situation of the premises was suitable for offensive trade purposes, and the Committee granted the application.

Horse Slaughterers and Knackers.

Application was again made by a firm in the Northern District of the City for renewal of licenses for carrying on the businesses of slaughterers of horses and knackers at separate addresses, both of which were granted.

Soap Boiling.

In August application was made by a firm to establish the business of soap boiling in the South-Western District of the City. The premises consisted of an old three-storey brick building with wooden floors, the ground floor being out of repair, but drainage was satisfactory.

The material used is tallow obtained from Dumfries, and is converted into hard white soap for household purposes. Two boiling pans are situated on the ground floor where the barrels of tallow are stored, before being boiled for two hours, and then run off and cut into bars.

Some houses and some workplaces are situated within 100 yards of the premises, but the license was granted on condition that no other business coming under the category of an offensive trade would be conducted other than that of soap boiling with only fresh refined tallow as above described, and no fish or other oils giving rise to offensive smells used.

SECTION IX.

GLASGOW PORT LOCAL AUTHORITY.

BOARDING STATION, GREENOCK.

At the boarding station at Greenock vessels are boarded by means of a motor launch, which is hired on a yearly contract.

This arrangement has worked satisfactorily.

SUMMARY OF WORK DURING THE YEAR 1923.

1895 vessels, trading with foreign ports and bound for the Port of Glasgow, passed the boarding station during the year 1923. Of this number 420 had called at ports which were infected under the meaning of the Cholera Order.

The following table shows the number of arrivals in each month of the year in the several groups, as also the number of crews and passengers:—

NUMBER OF SHIPS ARRIVING FROM FOREIGN PORTS—YEAR 1923.

MONTH.	(A) H.M. Customs.	FROM INFECTED PORTS.									(D) From Non-Infected Ports, with or without Cargo.			TOTAL.		
		(B) With Foreign Cargo.			(C) Light, or with Outward Cargo.			Total of B and C.								
		Ships.	Crew.	Pass.	Ships.	Crew.	Pass.	Ships.	Crew.	Pass.	Ships.	Crew.	Pass.	Ships.	Crew.	Pass
January, -	108	20	1,665	...	15	839	...	35	2,504	...	107	3,916	276	142	6,420	276
February, -	89	13	1,148	...	14	932	...	27	2,080	...	110	3,586	182	137	5,666	182
March, -	132	11	856	...	17	970	...	28	1,826	...	156	5,916	193	184	7,742	193
April, - -	138	11	724	...	27	1,952	...	38	2,676	...	144	5,892	605	182	8,568	605
May, - -	114	17	1,369	2	21	1,445	...	38	2,814	2	112	4,801	1,065	150	7,615	1,067
June, - -	95	23	1,732	5	14	915	...	37	2,647	5	112	4,861	2,370	149	7,508	2,375
July, - -	87	12	767	...	12	977	...	24	1,744	...	131	5,889	2,874	155	7,633	2,874
August, -	131	23	1,565	...	19	1,171	...	42	2,736	...	112	5,097	1,643	154	7,833	1,643
September, -	122	22	1,734	...	15	860	...	37	2,594	...	126	6,331	1,098	163	8,925	1,098
October, -	129	16	965	...	18	1,258	...	34	2,223	...	127	6,382	1,188	161	8,605	1.188
November, -	102	26	2,387	...	14	801	...	40	3,188	...	125	5,497	942	165	8,685	942
December, -	102	25	1,710	...	15	833	...	40	2,543	...	113	4,612	512	153	7,155	512
Totals, -	1,349	219	16,622	7	201	12,953	...	420	29,575	7	1,475	62,780	12,948	1,895	92,355	12,955
1922, -	1,214	200	15,393	6	247	16,424	...	447	31,817	20	1,232	51,681	11,990	1,679	83,498	12,010

The following table shows the number and nationality of the overseas vessels which arrived at the Port of Glasgow during 1923, as compared with the number for 1922:—

Nationality	Number of Vessels		Number of Crews	
	1922	1923	1922	1923
American, ...	86	62	3,247	2,450
British, ...	1,190	1,287	70,602	77,069
Danish, ...	7	27	151	553
Dutch, ...	10	14	204	294
Finnish, ...	5	5	91	105
French, ...	31	46	693	1,014
German, ...	29	42	496	786
Greek, ...	8	20	226	539
Italian, ...	16	21	590	727
Jugo-Slavian, ...	1	10	29	321
Latvian, ...	—	1	—	22
Norwegian, ...	168	190	3,304	3,700
Portuguese, ...	—	2	—	82
Panamanian, ...	—	1	—	9
Roumanian, ...	—	3	—	108
Spanish, ...	75	138	1,874	3,352
Swedish, ...	30	13	523	262
Japanese, ...	20	13	1,368	962
Total, ...	1,676	1,895	83,498	92,355

This table does not include ships arriving from Irish Free State ports. Number of arrivals of ships from Free State ports from 1st July, 1923, to 31st December, 1923, was 184; of these 108 were boarded by Port Local Authority officers at Greenock.

TABLE SHOWING DISEASES AND NUMBER OF CASES DURING THE YEAR 1923.

Disease.	Total Number of Cases during Voyage.	Cases Dealt with in other Ports.	Cases Found on Arrival.	Cases Sent to Hospital in Glasgow.	Cases Sent Home.	Deaths during Voyage.
Smallpox, ...	6	6	—	—	—	—
Enteric Fever, ...	10	4	6	6	—	3
Scarlet Fever, ...	2	1	1	1	—	—
Measles, ...	26	13	13	6	7	—
Chickenpox, ...	10	4	6	2	4	—
Whooping Cough, ...	1	1	—	—	—	—
Phthisis, ...	17	2	15	2	13	2
Venereal Disease, ...	18	6	12	6	6	—
Mumps, ...	4	4	—	—	—	—
Malaria, ...	24	3	21	3	18	—
Pneumonia, ...	31	19	12	12	—	7
Erysipelas, ...	2	1	1	1	—	—
Dysentery, ...	2	1	1	—	1	—
Trachoma, ...	2	—	2	—	2	—
Scabies, ...	2	—	2	—	2	—
Influenza, ...	17	—	17	—	17	—
Tonsillitis, ...	4	1	3	—	3	—
Glandular Swellings,	1	1	—	—	—	—
Diphtheria, ...	2	1	1	1	—	1
C. S. Fever, ...	2	—	2	2	—	2
Derique Fever, ...	7	—	7	—	7	—
Other Illnesses, ...	19	8	11	2	9	4
Totals for 1923, ...	209	76	133	44	89	19
		209		133		
Do. 1922, ...	167	69	98	59	39	11
		167		98		

SMALLPOX.

Of the six cases, all were members of crews. Four of the cases occurred on board one ship. The chief steward sickened on the 15/3/23. Exactly one month after sickening the chief officer and chief cook sickened, and were removed at Rotterdam on 20/4/23. On the 21/4/23, the crew of 46 were revaccinated, all revaccinations were unsuccessful except four firemen, and on 29/4/23 the third engineer sickened of smallpox and was sent to hospital at Rotterdam. When the ship arrived at

Liverpool the Liverpool Authorities removed the chief steward (7/5/23). On arrival of ship at Glasgow, 35 of the original crew were on board and were kept under observation whilst in port. They sailed with ship. No fresh cases occurred. The remaining two cases were also members of ships' crew. Of these, one was removed at Hamburg, and one at Colombo.

PHTHISIS.

17 cases were recorded, 15 of which were found on arrival, of which 8 were passengers. Of these 8, 4 were deported and 1 a reject. There were 2 deaths. One a passenger, the other a member of the crew.

PNEUMONIA.

Of the 31 cases of pneumonia, 27 were members of crews and 4 were passengers; 12 cases were sent to hospital in Glasgow, 7 of which died.

ENTERIC FEVER.

Of the 10 cases, 6 were noted on arrival and removed to hospital. All were members of crews, and there were three deaths.

VENEREAL DISEASES.

In all, 18 cases were reported; 12 on arrival at the port; 9 were members of crews and 3 were passengers, 2 of whom were rejects and 1 a deport, all British, and these 3 attended the clinic. Of the infected members of crews 3 were paid off on arrival and proceeded home; the others attended the clinic.

121 seamen attended the clinic during the year.

MALARIA.

All the cases found on arrival (21) were members of crews except 1, a deported passenger. The cases were of a mild type, only 3 requiring immediate hospital treatment.

INFLUENZA.

The 17 cases noted were in the convalescing stage and were allowed to proceed home. 15 cases were among crews and 2 among passengers.

ANTHRAX.

Goatskin thongs continue to be used as bindings for orange boxes from various ports in Spain. During the year these have been examined and, as in the previous year, some were found to be infected with anthrax. Oxhides were sampled from South

American shipments and submitted to the Bacteriologist, with negative results.

ALIENS ORDER.

The Aliens Order came into force on 1st September, 1919, and governs the landing of aliens in the United Kingdom at approved ports and inspection by the Immigration Officer and Medical Inspector.

During the year 1923, 97 ships carrying alien passengers arrived at the Port of Glasgow; of these, 7 were from St. John's, N.B.; 36 from New York; 41 from Montreal; 2 from Boston, 4 from Portland, Maine; 1 from Philadelphia; and 6 from other ports, chiefly European. In 1922, 92 such ships arrived. The total number of alien passengers brought into port was 3,173, and of these 3,017 were American citizens chiefly on holiday.

The examination of aliens by the Medical Inspector and the Immigration Officer is made concurrently as far as practicable, and the examinations are made on board ship. Where an alien has to undergo special medical examination this is done on shore at a hospital or at the Public Health Office. Under the Aliens Order all aliens remaining in this country for 3 months or more are subject to medical examination. During 1923, 440 such examinations were made. Only 3 were rejected on medical grounds. 2 were granted conditional landing, and 1 was granted unconditional landing, viz.:—

Measles.—Two children, saloon passengers, were found to be suffering from measles, and were granted conditional landing. They were removed to a place approved by the Medical Inspector.

Paralysis.—A second-class female passenger suffering from paralysis (all left side) was rejected. She was afterwards granted unconditional landing by the Immigration Officer.

RETURN OF ALIEN PASSENGERS ARRIVING AT THE PORT OF GLASGOW, 1923.

Nationality	Non-Transmigrant	Transmigrant	Total
American, ...	2,994	23	8,017
Armenian, ...	—	26	26
Norwegian, ...	1	13	14
Danish, ...	3	11	14
Russian, ...	12	—	12
Italian, ...	7	4	11
Others, ...	32	47	79
Totals, 1923, ...	3,049	124	3,173
Do. 1922, ...	2,861	110	2,971

EMIGRANTS.

The following is a return of the numbers (British subjects and others), with number of ships which left Glasgow for America, Canada, and Australia during year 1923:—

Country.	Ships.	British Subjects.	Other Nationalities.	Total.
1923.				
America,	39	23,505	2,290	25,795
*Canada,	78	41,070	1,078	42,148
Australia,	10	642	10	652
	127	65,217	3,378	68,595
1922, ...	92	28,519	3,716	32,235

*This does not include 588 Emigrants who embarked at Lochboisdale and Stornoway, for Canada.

DERATISATION OF SHIPS.

Sulphur dioxide gas is the fumigant employed for the destruction of rats and is found to be effective, cheap, and less dangerous to human life than other gases, particularly hydrocyanic acid gas (HCN). HCN gas fumigation is the method used in most of the American and Australian ports, and the regulations of the United States Public Health Service provide that all ships trading with foreign ports shall be fumigated for the destruction of rats not less than once in every six months. If HCN gas be the method employed, 5 ounces of sodium cyanide (or potassium cyanide) or 2½ ounces of liquid HCN must be used per 1,000 cubic feet; if SO_2 be the method, 3 lbs. of sulphur per 1,000 cubic feet. The ship is exposed to these fumes for a period of two hours and six hours respectively when empty, and double that time if loaded. About 75 per cent. of the ships arriving at the port during the year were found to have undergone recent fumigation, *i.e.*, within six months. 22 ships were fumigated during the year; 12 from infected ports and 10 from non-infected ports. Trapping is the other means employed in rat extermination in the port—rat poison is never used. On 75 ships traps were laid; 73 of these were from plague-infected ports, and two from non-infected ports. Various baits were used, but the most successful bait was found to be red herring with a sprinkling of lemon essence. The black rat (*Mus rattus*) is not peculiar to ships trading with

Eastern infected ports, but is also found to infest ships trading to the Western ports. In the case of one ship subjected to SO_2 fumigation, trading to Canada, 150 dead rats were found, and of these 50 were of *Mus rattus* family. Again, in three ships from New York 156 rats were destroyed, and of these 99 were black. They do not confine themselves to any particular part of the ship, but are found in common with the brown rat wherever food is.

FUMIGATION STANDARDS.

The strength of the cyanide gas and the duration of exposure varies with the object sought. The service standards in this respect are as follows:—

A. For the destruction of mosquitoes—½ oz. of sodium cyanide per 1,000 cubic feet of space, exposure ½ hour.

B. For the destruction of fleas—2½ oz. sodium cyanide per 1,000 cubic feet of space, exposure ½ hour.

C. For the destruction of rodents—5 oz. of sodium cyanide per 1,000 cubic feet of space, exposure 2 hours.

D. For the destruction of lice—10 oz. of sodium cyanide per 1,000 cubic feet of space, exposure 2 hours.

E. For the destruction of bed bugs—5 oz. sodium cyanide per 1,000 cubic feet of space, exposure 2 hours.

Recently, 2½ oz. of liquid HCN per 1,000 cubic feet of space has been recognised as a standard quantity. The above standards only apply to empty holds and superstructures, except storerooms which have a large quantity of stores. In loaded ships or in well-packed storerooms the length of exposure should be doubled.

TABLE I.

Rats and Mice (Destruction) Act, 1919.

IPS—

Description of Rat.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total for the Year
lack Rats ...	13	50	31	96	79	73	68	70	66	83	65	151	845
rown Rats (and Grey)	33	21	21	65	75	64	74	28	82	63	23	136	685
	46	71	52	161	154	137	142	98	148	146	88	287	1,530
ats examined, ...	21	32	21	33	27	37	32	18	42	30	31	42	366
AREHOUSES, &c.—													
lack Rats ...	—	—	—	—	—	—	—	—	—	—	—	—	—
rown Rats (and Grey)	23	13	11	9	—	—	—	—	—	—	—	—	56

TABLE II.

PRECAUTIONS AGAINST PLAGUE—MEASURES FOR THE DESTRUCTION OF RATS ON BOARD SHIP.

Vessels arriving in the Port Sanitary District			Vessels subjected to Measures of Rat Destruction.					
			Number of Vessels			Number of other Vessels.	Measures employed (trapping, fumigation, &c.).	Results.
Plague Infected.	Plague Suspected.	From Infected Ports.	Plague Infected.	Plague Suspected.	From Infected Ports			Number of Rats killed
Nil	Nil	420	Nil	Nil	85	12	Trapping, 75 ships, ...	852
							SO_2, 22 ,, ...	678
								1,530

REMARKS.

On 73 ships from Infected Ports 827 rats were caught by trapping.

On 2 ships from Non-infected Ports 25 rats were caught by trapping.

On 12 ships from Infected Ports 321 rats were destroyed by SO_2 fumigation.

On 10 ships from Non-infected Ports 357 rats were destroyed by SO_2 fumigation.

On 9 ships from Non-infected ports no rats were found after fumigation by SO_2. The ships were comparatively new ships and were fumigated to conform with U.S.A. regulations.

The following table shows the numbers, distribution, and species of rats destroyed on board ship:—

		Holds	Storeroom	Peaks	Crews' Quarters	Other Parts	Total
Trapping Infected Ports	Black ...	282	116	55	30	26	= 509
	Brown ...	167	98	12	12	29	= 318
Trapping Non-infected Ports	Black ...	6	—	—	—	—	6
	Brown ...	19	—	—	—	—	19

SO_2 For the 12 ships from Infected Ports fumigated by SO_2, 152 were Black and 169 were Brown.

For the 10 ships from Non-infected Ports fumigated by SO_2, 174 were Black and 183 were Brown.

Of the 845 Black Rats destroyed 704 were male and 141 female.

,, 685 Brown Rats ,, 590 ,, 95 ,,

Of the total 1,530 rats destroyed, 1,294 were male and 236 female.

It will be noted that 73 ships from infected ports were dealt with; of these 48 came from India; 11 from Africa; 10 from South America; 2 from Australia; 1 from Jaffa; and 1 from China.

NUISANCES ON SHIPBOARD.

2,620 inspections and reinspections of vessels in harbour were made during the year. The visits to oversea steamers numbered 1,885, and the revisits 360. In oversea sailing vessels 10 inspections and 3 revisits were made, while 310 coasting steamers and 12 sailing craft were examined, revisits being paid to 38 of the former and 2 of the latter. 188 verbal warnings were given to masters where nuisances of a minor nature were found, and 56 intimations and 3 notices (under the Public Health Act) were served where defects existed. 564 verbal instructions were given, and 640 notices served on masters of vessels *re* locking up water-closet accommodation while vessels were in port.

The nuisances discovered numbered 1,603—in forecastles, rooms, &c., 688, and in water-closets, wash-houses, &c., 270, while structural defects were found in 240 instances—201 within crews' quarters, and 39 in water-closet and lavatory compartments. General complaints were recorded in 405 instances.

Sanitary Defects and Nuisances.—The following table shows the nuisances found on board vessels arriving in the harbour:—

NUISANCES FOUND WITHIN GLASGOW AREA DURING THE YEARS 1921-1923

ARISING FROM MISUSE.	1921	1922	1923
Forecastles, Rooms, &c,—			
Alleyways and companionways dirty, ...	54	115	125
Floors, mat coverings, ceilings, woodwork, &c., dirty,	222	172	174
Interior of ships' sides or woodwork dirty (to be limewashed or repainted), ...	108	150	130
Galleys dirty, ...	—	7	9
Tables and benches dirty, ...	108	159	229
Scuppers choked (water lying stagnant), ...	14	7	21
Afterpeak flooded, ...	—	—	—
Cattlemen's quarters dirty, ...	—	—	—
Rooms flooded, ...	—	—	—
	506	610	688
Water-closets, Wash-houses, &c.—			
Floors, ceilings, and wood work dirty, ...	81	92	87
Basins, hoppers, or troughs fouled, corroded, or choked,	70	70	98
Scuppers choked, ...	8	16	31
Wash-house dirty, ...	—	—	6
Interior requiring limewashing or repainting, ...	48	54	48
	207	232	270

General Nuisances.	1921	1922	1923
Food lockers dirty, ...	48	126	230
Bilges (hold) dirty.	48	38	32
Gear and food-stuffs stored in sleeping compartments,	—	—	11
Drinking-water tanks dirty and in need of re-cementing,	92	82	81
Do. out of repair or uncovered, ...	1	2	2
Accumulation of rubbish in forecastle or on deck,	44	24	26
Forecastle infested with vermin, ...	14	25	14
Forecastle overcrowded, ...	1	—	—
Bedding dirty or verminous, ...	—	20	9
	248	317	405

Arising from Structural Defects.

Forecastles, Rooms, &c.—			
Overhead decks leaking, ...	63	34	45
Ports defective, ...	91	74	83
Skylights out of repair, ...	—	3	2
Without scupper-pipe or same cemented, ...	—	—	2
Ventilators plugged, out of repair or unshipped,	—	2	6
Without bogies or funnels, or such out of repair,	8	5	21
Inadequately lighted or ventilated, ...	15	3	9
Radiators or steam-pipes defective, ...	24	11	11
Doors to forepeak and forecastle broken, ...	—	—	1
Ships' sides leaking, ...	6	1	3
Anchor chain exposed by sheathing being out of repair,	—	2	2
Doors of food lockers and seats out of repair, ...	15	4	2
Requiring wood-sheathing or cork-spraying for "sweat,"	2	1	4
Hawse-pipes defective, ...	—	1	2
Floors broken and out of repair, ...	—	2	3
Bulkhead between forecastle and w.c. compartment broken, ...	—	—	1
Scuppers required, ...	—	—	2
Bunks in a decaying condition.	--	—	—
Waste pipe leaking, ...	1	-	2
	225	143	201

Water-closets, Urinals, Wash-houses, &c.—	1921	1922	1923
Flushing apparatus, basins or discharge pipes defective, ...	1	1	1
New water-closet required, ...	—	4	6
Ports defective,...	—	2	1
Floor and woodwork out of repair, ...	—	1	2
Doors broken and new locks required (w.c.'s must be locked while ship is in harbour),	4	14	12
Ventilators plugged, ...	—	1	2
Woodwork of w.c. basin broken, ...	5	17	13
Compartments defective in light and ventilation,	—	1	2
	10	41	39

The following table shows the number of oversea and coastwise ships inspected in the harbour during the years 1920-1923:—

	1920	1921	1922	1923
Inspections—				
Oversea Steam, ...	1,427	1,232	1,666	1,885
,, Sail, ...	11	10	13	10
Coast Steam, ...	571	288	273	310
,, Sail, ...	23	10	21	12
Re-inspections—				
Oversea Steam, ..	501	473	347	360
,, Sail, ...	11	4	3	3
Coast Steam, ...	196	83	47	38
,, Sail, ...	16	8	7	2
Intimations, ...	180	85	53	56
Warnings, ...	291	209	177	188
Notices, ...	6	4	4	3
L.A.'s Letters, ...	10	—	—	12
Nuisances—				
Functional, ...	1.269	713	842	1,211
Structural, ...	430	235	184	225
General, ...	281	248	317	172

Of the total arrivals 1,287 were British, and 608 vessels sailing under a foreign flag, the latter including 17 different nationalities —Norwegians, Americans, Spaniards, French, Swedish, and German predominating.

During the year 1923 a large number of our merchant ships (passenger and cargo vessels alike) have been converted from coal to oil fuel burning, with the result that a marked reduction, about

33⅓ per cent., has taken place in the numbers of crews on such ships, thereby increasing the cubic space per man. This increased cubic space, however, may be only temporary as these ships may revert to coal-burning at any time—particularly when it is possible to effect such change in from 12 to 24 hours. Crew accommodation and comfort in all show a marked improvement, more particularly in the Australian and American Merchant Fleets.

UNSOUND FOOD REGULATIONS.

The following table shows the character and quantity of the food-stuffs imported direct during 1923 (but does not include coastwise or transhipped cargoes), a percentage of which was examined by the Food Inspectors before its removal:—

Article.	Weight Tons.	Cwts.	Article.	Weight. Tons.	Cwts.
Apples,	42,129	8	*Brought Forward,*	461,564	5
Apricots,	134	13	Lemons,	2,459	16
Almonds,	840	6	Liquorice,	34	6
Bananas,	35	3	Meal (various),	12,700	1
Bacon,	1,524	7	Meats (canned, &c.),	2,804	16
Baking Powder,	124	5	Melons,	2,034	4
Barley,	59,426	16	Milk (canned),	264	13
Butter,	1,097	2	Milk (powder),	63	—
Cereals (Oats, Rye, &c.),	147,882	9	Molasses,	1,918	11
Cheese,	3,661	—	Macaroni,	442	7
Coffee,	2	4	Nuts,	2,227	13
Chicory,	100	0	Oils (various),	5,177	—
Cocoa,	9	9	Onions,	14,662	18
Condiments,	1,002	16	Oranges,	28,081	—
Confectionery,	286	13	Orange and Lemon Peel,	190	—
Cream of Tartar,	257	—	Peaches (canned),	236	19
Eggs,	5.620	12	Pears,	2,146	1
Eggs (liquid).	940	13	Pears (canned and dried),	712	7
Eggs (albumen),	98	6	Pineapples,	255	—
Fish (canned, &c.),	435	10	Plums (canned and dried).	301	9
Fruits (canned).	1,399	14	Pomegranates,	387	6
Fruits (dried),	4,315	17	Potatoes,	858	3
Fruit (pulp),	1,200	—	Peas,	23,555	8
Flour (various),	157,234	4	Rice,	10.828	17
Farinaceous Foods,	3,489	12	Sundries,	1,954	3
Glucose,	3,671	19	Sugar,	14,152	8
Grapes,	4,951	3	Syrup,	47	—
Grape Fruit,	111	2	Tomatoes,	82	—
Ham,	16.590	3	Tomatoes (canned),	438	14
Honey,	121	12	Vegetables (canned),	355	16
Lard (pure),	2,774	4	Wheat,	156,752	10
Lard (compo.),	96	3			
Carry Forward,	461.564	5	TOTAL,	747,688	11

The following food-stuffs were found unfit, and disposed of to the satisfaction of the Medical Officer of Health:—

Article.	Weight.			Article.	Weight.		
	Cwts.	Qrs.	Lbs.		Cwts.	Qrs.	Lbs.
Apples, - -	261	2	17	*Brought forward,*	317	—	3
Apples (canned), -	19	1	8	Ham, - -	5	1	12
Apricot pulp, -	9	2	16	Pears, - -	343	2	6
Corned Beef, -	16	3	8	Prunes, - -	9	—	15
Chutney (Mangoe),	6	1	22	Pork and Beans,	85	1	12
Currants, - -	3	—	16	Oranges, - -	1,316	2	14
Carry Forward,	317	—	3	TOTAL, -	2,077	—	6

During the year the following food-stuffs were sampled and submitted to the City Analyst, who reported as follows:—

Article.	Sample Reported Fit for Human Consumption.	Sample Reported Unfit for Human Consumption.	Notes on Defective Samples.
Apples, ...	2	—	
Baking Powder, ...	1	—	
Butter, ...	19	—	
Cocoanut (Desiccated),	—	1	Contaminated by bilge water, 28 cwts. condemned.
Cereals (Prepared) Grape Nuts, &c.,	4	3	Damaged by sea water, 480 cwt. lentils and 1,500 cwt. peas condemed.
Confectionery, ...	2	—	
Cocoa Beans, ...	1	1	Damaged by water, 100 bags, weighing 100 cwts. condemned.
Coffee Substitute, ...	2	—	
Citric Acid, ...	1	—	
Currants, ...	2	1	Damaged by bilge water.
Cream of Tartar, ...	9	1	Excessive amount of lead present.
Egg Yolk, ...	35	3	Excessive amount of boric acid present.
Fats (various), ...	11	—	
Fish (tinned. &c.), ...	10	—	
Fruit (tinned, &c.),	50	—	
Fruit Pulp, ...	5	—	
Honey, ...	2	—	
Lard (pure), ...	27	—	
Lard (compo), ...	2	—	
Milk (canned, dried, &c.)	14	—	
Meats (canned), ...	17	6	Consignment shipped to Continent.
Oils (various), ...	13	—	
Oysters (canned), ...	2	—	
Preservatives (Food),	1	1	Excessive amount of Arsenic present.
Pork and Beans (canned).	9	12	Consignment reconditioned in Store. Approx. 85 cwt. of Beans condemned.
Sauces, ...	8	—	
Soups (tinned), ...	9	—	
Sugar, ...	—	1	Contaminated with foreign material.
Syrups (various), ...	2	—	
Tartaric Acid, ...	6	—	
Vegetables (canned) Tomatoes, Peas, &c.,	24	—	

FOREIGN MEAT REGULATIONS.

The following table gives the total quantity of food material landed in the Port of Glasgow during the year 1923, a percentage of which was examined under the Foreign Meat Regulations. The returns for 1921 and 1922 are given for comparison:—

Beef.	1921	1922	1923
Quarters, ...	98,094	20,718	72,639
Bags, ...	7,994	44,970	169,019
Rumps (tierces), ...	4,045	3,318	2,965
Mess ,, ...	635	—	—
,, (barrels), ...	975	1,778	2,381
,, (boxes), ...	—	—	—
,, (crops), ...	—	325	—
Boneless (boxes), ...	29,473	98,576	35,981
Tierces, ...	—	415	—
Suet.	251	568	—
Fat, ...	—	107	736
Ox Livers, ...	—	70	316
Veal.			
Carcases, ...	109	8,054	—
Sides, ...	677	—	—
Quarters, ...	59	—	—
Bags, ...	73	—	352
Cuts, ...	—	—	—
Packages, ...	—	—	—
Boxes, ...	284	—	—
Mutton.			
Carcases, ...	14,075	46,595	77,123
Cuts (bags), ...	—	—	143
Casings, ...	36	3,542	—
Pork.			
Ribs (tierces), ...	—	—	—
Carcases, ...	1,001	13,534	4,899
Mess (barrels), ...	825	1,005	—
,, (carcases).	—	—	480
,, (boxes), ...	—	—	13,705
,, (tierces), ...	—	—	144
Tongues, &c. (bags or boxes),	—	76	353
Hearts, ...	—	—	619
Livers (tierces), ...	5	—	—
Casings (barrels or tierces),	163	64	—
Ham (tierces), ...	—	7	5,789
Loins (boxes).	1,307	576	—
Offal (bags), ...	—	—	300
Raw Tripe (bags), ...	—	70	—
Cooked Tripe (boxes), ...	—	1.030	3,457
Ox.			
Kidneys, ...	—	—	118
Skirts, ...	—	—	455
Cheeks, ...	—	—	1,340
Sweetbreads, ...	—	—	55
Fish, Fowls, &c.			
Salmon, ...	—	150	—
Fowls, ...	—	2,547	8,001
Others, ...	—	140	—
Total Packages, ...	160,081	248,235	401,370

EXPENDITURE AND REVENUE FOR THE YEARS ENDING 31ST MAY.

	1922	1923	1924
Expenditure.	£	£	£
Boarding Station, Greenock, ...	818	1,322	1,300
Glasgow Harbour, ...	2,524	2,729	2,888
General and Administrative, ...	1,179	1,436	1,392
Medical Inspection under Aliens Order,	556	370	339
Total, ...	5,077	5,857	5,919
Revenue.			
From other Authorities, Government Grant, &c., ...	3,298	3,124	2,469
Glasgow Expenditure, ...	1,779	2,733	2,450

SECTION X.

HOUSING.

HOUSING, TOWN PLANNING, &c., ACTS, 1909-1919.

For the purposes of the above Acts 16,356 inspections were made during the year, viz.:—

Central Division, ...	3,200
Northern ,, ...	3,170
Eastern ,, ...	3,138
South-Eastern ,, ...	4,069
South-Western ,, ...	2,779
	16,356

In former years it was the custom to issue a preliminary intimation to owners of houses falling to be dealt with under Section 25 of the Act of 1919, but in March, 1923, the Local Authority decided to discontinue this procedure and to make the *statutory* notice under the Section the initial communication with the owner. During the period January to March 156 intimations were issued, dealing with 444 defects in 254 houses, and the following summary shows the number of these in each division:—

Intimations—

Division	No. Issued	No. of Defects	No. of Houses Affected
Central, ...	21	71	40
Northern, ...	47	96	57
Eastern, ...	54	154	90
South-Eastern, ...	28	100	49
South-Western, ...	6	23	18
	156	444	254

In respect of 63 of these intimations the work called for was carried out, and the following summary shows the number so dealt with in each division, viz.:—

Repairs remedied on issue of Intimations—

Division	No. Issued	No. of Defects	No. of Houses Affected
Central, ...	15	53	30
Northern.	24	47	29
Eastern.	13	30	20
South-Eastern, ...	11	45	22
South-Western, ...	—	—	—
	63	175	101

Statutory notices were subsequently issued in respect of the remaining 93 intimations, and the following summary includes these and other statutory notices issued during the course of the year, viz.:—

Statutory Notices Issued—

Division		No. Issued	No. of Defects	No. of Houses Affected
Central,	... ...	163	458	252
Northern.	... ...	347	743	453
Eastern,	... ...	422	953	522
South-Eastern,	...	175	522	253
South-Western,	...	455	1,050	614
		1,562	3,726	2,094

These statutory notices thus covered 2,094 houses, and if there is added the 101 houses in which repairs were executed following the issue of the *preliminary* intimation only, the number of houses dealt with during the year under Section 25 may be stated at 2,195. In order, however, to maintain a continuous record with previous years when the number of "intimations" gave the net number of houses dealt with anew within a particular year, it is necessary to exclude from the total the statutory notices issued during 1923 in respect of houses for which preliminary intimations had been issued in 1922. The divisional distribution of such notices was as follows:—

Statutory Notices issued in 1923 following Intimations issued in 1922—

Division		No. Issued	No. of Defects	No. of Houses Affected
Central.	... ...	2	2	2
Northern,	... ...	26	120	77
Eastern.	... ...	71	225	120
South-Eastern,	...	—	—	—
South-Western,	...	14	27	17
		113	374	216

Deducting these from the total number of statutory notices issued and adding the 63 instances in which repairs were effected on the issue of preliminary intimations during the first quarter of 1923, the following summary shows the net number of houses in each division in connection with which action was taken for the first time during 1923:—

Net Number of Houses dealt with under Section 25 during year 1923—

Division	No. Issued	No. of Defects	No. of Houses Affected
Central, ...	176	509	280
Northern, ...	345	670	405
Eastern, ...	364	758	422
South-Eastern, ...	186	567	275
South-Western, ...	441	1,023	597
	1,512	3,527	1,979

Failure to implement the statutory notices issued occurred in 78 instances, and in respect of these authority was obtained to remedy the defects complained of and to charge the owner with the cost of repair. The following table summarises these cases in divisions:—

Sent to Master of Works to execute Repairs—

Division	No. Issued	No. of Defects	No. of Houses Affected
Central, ...	9	52	25
Northern, ...	8	37	22
Eastern, ...	44	247	139
South-Eastern, ...	6	82	31
South-Western, ...	11	22	12
	78	440	229

SLUM CLEARANCES AND REHOUSING SCHEMES.

NORTHERN DIVISION.

The Divisional Inspector reports that the Cowcaddens, &c., Improvement Scheme, 1923, so far as it concerns this district, provides for the rehousing of 500 families from slum areas and the demolition of the houses vacated. The Parliamentary Road Reconstruction Scheme, 1917, makes provision for the clearing of a slum area that will affect other 91 families, so that, in all, nearly 600 families in the Northern Division will ultimately be rehoused under these two schemes.

Congestion and consequent want of light and ventilation are the gravest defects in the tenements dealt with, and some of the most insanitary properties in Cowcaddens and Woodside Wards are included in the schemes. In certain sections of the areas to be cleared, the density of population exceeds 1,000 per acre; while at Hamilton-hill—the principal rehousing site—the number of houses has been restricted to 27 per acre, which gives a density of population of, approximately, 122.

Building operations for the housing of the families to be dispossessed were commenced in October, 1922. The houses are of two and three apartments, and are built in tenements of three storeys, with two houses in each flat, and in each house there is a scullery and a bathroom, with hot-water supply to both. The rents vary from 6s. 6d. per week (including rates), for two-apartment houses, to 8s. per week for three apartments; and in the allocation of the houses to the different families sex separation, at ten years of age, has been aimed at.

By the end of the year the number of families transferred from Cowcaddens to the new houses at Hamilton Hill was 107. In order to ascertain what response would be made by the tenants to the improved housing conditions, regular inspections of the houses have been made. It was not anticipated that the influence of the new surroundings would have the effect of bringing about an immediate shedding of slum ways of living; but it may be said that, in the majority of cases, there has been a reaction to the healthier environment, and that there is, among the tenants generally, an appreciation of the advantages they now possess compared with the unfavourable conditions inseparable from the old style of housing. Larders, bathrooms, &c., are conveniences to which these families have been entirely unaccustomed, but in no case has wilful misuse been observed, and there is little or no indication, so far at any rate, that as some feared, the new houses will speedily be reduced to slums. From another point of view, the statement of an officer of the Salvation Army is of interest. This lady, who is familiar with both the old and the new conditions, states that she observes already an increasing sense of self-respect among the girls who formerly resided in the cleared areas.

But not all the tenants are enamoured of their new quarters, and one old lady very fluently expressed her indignation against the Corporation for turning her out of her "cosy wee hoose," and bringing her to a place where she was certain she would "starve to death with cold." According to her story, she was born in a back land; was married, and had brought up her family in a back land; and thought she might have been left there to end her days. That the Hamiltonhill houses have an attraction for many, however, is apparent from the fact that, in visiting lower class properties throughout the Division, the question:—"Can I get a house at Hamiltonhill?" is met with on every hand.

While progress is being made in the direction of rehousing the slum dweller who comes within the scope of the Clearance Schemes, there is another class of householder at least as necessitous and deserving of consideration, for whom no direct provision has so far been made. The class referred to includes those families who are living under grossly overcrowded conditions in houses outwith the areas selected for Slum Clearance. Some of these families have tried in every direction to obtain more adequate accommodation, but without success. The ordinary Housing Scheme type of houses, such as those at Riddrie, are beyond their means, and as in many instances families of nine or ten persons are occupying single apartments and ten to twelve living in houses of two apartments, their case is one of extreme urgency.

Reference may also be made to a large number of uninhabitable houses—basement houses, &c.—which are so situated that it would be impracticable to include them in Improvement Schemes. Such houses could be effectively dealt with by means of Closing Orders, if alternative accommodation could be found for the tenants, and similar action taken against the most seriously defective houses in areas, which may not be dealt with by Improvement Schemes, would be along the line of making provision first for the families suffering the greatest hardships from unwholesome housing conditions.

Another phase of the question is illustrated by the example of an old and hopelessly defective property in Provan Ward. A Closing Order, against which an appeal was lodged, was issued regarding all the houses in the tenement referred to in 1919; and 24 houses, all single apartments and all at present in occupation, are involved. Ten of the houses are occupied by elderly persons living alone—8 women and 2 men—and the whole income of 16 of the 24 tenants is derived from Old Age Pensions, Parish Relief, Unemployment Benefit, &c. Only 6 of the tenants are employed, and 2 are at present in hospital. The average weekly income of the 6 employed tenants is 27s.; and the average of the 16 in receipt of Old Age Pensions, &c., is 17s. 6d. The average rent charged for the houses is 2s. 1d. per week, including rates.

These hapless people, who are living under most depressing conditions, have a commendable desire to maintain their independence and keep up homes of their own, but it must be a dour struggle, and to most of them the low rent is the only attraction these houses possess. How to provide for them alternative accommodation, suitable in all respects, is a problem not easily solved; but, until adequate accommodation of some kind or other can be found for them, it will, of course, be impossible to put the Closing Order into operation.

At Campbell Street, Springburn, another of the rehousing sites in connection with Slum Clearance, progress is being made in the erection of 138 houses—102 of two apartments, and 36 of three apartments, *i.e.*, 26 per cent. of the total are houses of three apartments.

DEMOLITIONS AND DISPLACEMENTS.

Two tenements in Dalmarnock Ward were demolished during the year, owing to the dangerous condition of the structures.

They consisted of a front and back lands, containing 13 one-apartment houses, 16 two-apartment houses, and 1 three-apartment house—30 houses, and accommodated 74 adults and 24 children.

In January a turnpike stair leading to the houses in the front land suddenly collapsed, leaving the tenants without means of access. As no other houses were available, some of the tenants found shelter in the Police Office, while others were accommodated in the houses of friends. A number of the tenants refused to leave. They were paying no rent, and on that account were prepared to take risks. These people gained access to the houses by means of ladders placed against the windows in the back wall of the property.

The Dean of Guild Court, however, issued an order for the demolition of both front and back lands, and those who were unable to find shelter were eventually accommodated by the Poor Law Authorities.

The following table summarises the displacements under the Slum Clearance Scheme so far as they occurred prior to the end of the year:—

GLASGOW (COWCADDENS, &C.), IMPROVEMENT SCHEME, 1923.

PREMISES CLOSED DURING NOVEMBER-DECEMBER, 1923, AND WHERE REHOUSED.

		Corporation Housing Scheme					Elsewhere			
		Number of Apartments			Number of Occupants		Number of Apartments		Number of Occupants	
Area	Address	1	2	3	Adults	Children	1	2	Adults	Children
N.A.	44, 48, 39, 51, 55 Muse Lane,	6	30	—	116	48	2	—	4	4
N.D.	17, 19, 21, 23, 25, 27, 31 Muse Lane,	1	31	4	143	71	—	—	—	—
N.D.	46 Milton Lane, 14, 11 Milton Lane, entered 43 Maitland Lane,	4	11	1	42	33	2	—	7	4
N.E.	23, 25, 27 Maitland Lane,	2	1	—	7	—	—	—	—	—
N.F.	27 William Street, entered 174 Cowcaddens Street,	—	6	—	19	8	—	1	5	2
N.G.	12, 47 Water Street,	—	4	—	11	7	—	1	2	—
		13	83	5	338	167	4	2	18	10

INCREASE OF RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACT, 1920.

During the year 415 applications for certificates, in terms of Section 2 (2) of the above Act, were received compared with 420 for 1922. Of these 75 were refused, and 340 granted, 180 of the latter being in respect that the houses affected were not in all respects reasonably fit for human habitation, and 160 in respect that the houses were not in a reasonable state of repair. The following summary shows the distribution throughout the several administrative divisions:—

GLASGOW.—APPLICATIONS FOR CERTIFICATES UNDER SECTION 2 (2) OF THE INCREASE OF RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACT, 1920.

DIVISION	REFUSED	GRANTED in respect that Houses were—	
		(1) Not in all respects reasonably fit for human habitation	(2) Not in a reasonable state of repair
Central, ...	18	49	20
Northern, ...	18	54	60
Eastern, ...	19	9	26
South-Eastern, ...	7	18	24
South-Western, ...	13	50	30
CITY,	75	180	160
		340	

SECTION XI.

BACTERIOLOGICAL DEPARTMENT.

REPORT BY DR. R. M. BUCHANAN.

THE WASSERMANN TEST.

During the year the Wassermann Test was performed on 8,916 serums and 153 cerebro-spinal fluids, making 9,069 altogether. The positive percentage rate over all was 36·6. Of the total number 1,560 were duplicates, that is, from patients under treatment, whose blood has been previously examined on at least one occasion. For the last quarter, the findings were tabulated monthly to show the results in relation to duration of the disease and of treatment.

The tables are summarised, and presented below:—

	- 6 Months		- 12 Months		- 2 Years		2 Years +		No time	
	Total	% Pos.	Total	% Pos.	Total	% Pos.	Total	% Pos.	Total	% Pos.
Duration of illness before treatment (*i.e.*, at time of serological diagnosis),	519	29·5	109	21·1	74	32·4	299	28·8	390	23·1
Duration of illness after treatment, ...	93	41·9	87	39·1	91	48·4	292	53·4	169	55

DIPHTHERIA CARRIERS.

During the year 1923, numerous examinations were made of swabs from the throats of suspected diphtheria carriers.

The diphtheria bacillus persisted for long periods in a number of these cases without causing any symptoms, although frequently retaining a high degree of virulence on biological test.

Two classes of cases were met with, namely (1) those in which an attack of diphtheria had preceded the carrier condition: and (2) those cases in which there were no symptoms of diphtheria from the beginning, viz., contact cases.

An interesting case of the first class was that of A.S., a teacher, whose throat swab remained persistently positive for over three months. A virulence test was done at the end of two months, and the organism proved virulent, killing the guinea-pig in less than two days.

Another case, P.M'C., remained positive over three months, at the end of which time the organism was tested biologically, and proved fatal to a guinea-pig in two days, a pure growth of B. diphtheriæ being obtained from the site of inoculation in the guinea-pig.

Of the second or contact class, the most outstanding example was met with in a ward of a small convalescent home where a case of diphtheria occurred. The throats of the other occupants of the ward were swabbed. Seven of these were found to harbour the bacillus of diphtheria. The virulence test was performed in these seven cases and six were found to have organisms virulent to guinea-pigs, five of the animals dying within three days of inoculation.

TUBERCULOSIS.

Defatted vaccine for the treatment of tuberculosis was prepared in the laboratory, according to the method described by Professor Dreyer, and was issued for use in one of the Corporation hospitals.

Examination of Milk Samples for B. tuberculosis.

Total number of Samples received, ...	1,157
,, ,, Duplicates, ...	41
	1,198

These samples were grouped according to their source.

(1) *From Town and Country Milk Supplies.*—There were 233 samples of milk submitted by the Veterinary Surgeon from cows with disease of the udder, and the results (biological test) are given in the table which follows:—

	Samples	Duplicates	Tubercular	Percentage Tubercular	Streptococcus of Mastitis
Town Cows, ...	191	11	4	2·09	6
Country Cows, ...	42	1	—	—	5
	233	12	4	1·71	11

(2) *From City Milk Supply.*—In continuance of the series of examinations of milks coming into the city, 126 samples (mixed milk) were taken at the railway stations. Each sample was examined for the presence of B. tuberculosis.

Samples	Duplicates	Tubercular	Percentage Tubercular
126	—	10	7·94

As a consequence of finding B. tuberculosis in the mixed samples, 150 samples from individual cows at the farms implicated were submitted by the Veterinary Surgeon for examination. Only three of these samples were found tubercular. This apparent discrepancy is most probably attributable to the removal of the diseased cow from the herd in the interval of three weeks which elapsed from time of sampling at the railway station to sampling at the farm — this period being required for the biological test.

(3) *From Hospital Milk Supply.*—The hospital supplies were systematically examined by taking samples once a fortnight. In this way 150 samples were received for examination in the laboratory in the course of the year, each sample being taken from the mixed morning and evening milk as it arrived at the hospital. Three of these samples showed, by biological tests, the presence of tubercle bacilli. As a result of finding B. tuberculosis in these hospital milks, 498 samples from individual cows were taken and submitted by the Veterinary Surgeon for examination. The milk from three of these cows revealed the presence of tubercle bacilli.

In each case, therefore, of finding B. tuberculosis in a mixed hospital milk supply, the source of infection has been traced to an individual cow.

In accordance with the Milk Designation Order a number of samples were taken and submitted for bacteriological examination to determine the bacterial count. The results obtained may be tabulated as under:—

DESIGNATED MILK (22*nd May to* 10*th December*).

		Agar Count per c.c.			Coliforms	
	No. Examined	Highest	Lowest	Average	Present in	Absent in
Certified, ...	7	245,000	2,450	43,657	$\frac{1}{10}$ c.c. 0	$\frac{1}{10}$ c.c. 7
Grade A, ...	—	—	—	—	—	—
Grade A (T.T.) (Tuberculin tested),	7	564,750	16,600	139,414	$\frac{1}{100}$ c.c. 4	$\frac{1}{100}$ c.c. 3
Grade A (Pasteurised). ...	—	—	—	—	—	—
Pasteurised, ...	13	2,194,000	9,426	293,442	$\frac{1}{10}$ c.c. 9	$\frac{1}{10}$ c.c. 4

TUBERCULOSIS DISPENSARIES.

During the year 1,647 specimens of sputum from patients attending the tuberculosis dispensaries were examined, and the bacillus of tuberculosis was found in 273 of these, or 15 per cent. The comparative figures for the preceding year were 1,914 specimens, and 341, or 18 per cent., positive.

ENTERICA.

(Enteric Fever, Paratyphoid A, Paratyphoid B.)

The positive results obtained from the examination of the blood of suspected cases of enteric fever during 1923 reached their lowest point in the laboratory records. In 1903, for example, the percentage of positive tests in 1,014 specimens was 46·8 per cent.; in 1913 it was 19 per cent. in 595 specimens and in 1923 it was 9·6 per cent. in 361 specimens. There is thus evidenced a very marked decline in the incidence of enteric fever.

Of the total number of serological tests for the enterica diseases carried out in 1923, 104 were for Paratyphoid A and B. The results of the tests are shown in the following table:—

	Tests	Total Positive	Percentage Positive
Paratyphoid A, ...	49	—	—
,, B, ...	55	14	25·5

Paratyphoid A fever is a rare disease in this country, but specimens of blood submitted for Paratyphoid B are concomitantly examined for Paratyphoid A. It is on this account that 104 tests appear in this table, these being from 55 patients.

It appears then that the percentage positive for paratyphoid B is higher than proved to be the case in examinations for enteric fever (9·6) per cent. The laboratory figures appear to foreshadow the probability that paratyphoid fever may be found to be more prevalent in future years than enteric fever, provided, as we are justified in assuming, that the latter disease continues to show its now familiar low incidence.

The detection of paratyphoid fever more frequently now than formerly is largely explained by the fact, which was made clear during and after the war, that, in dealing with patients who had received the Army inoculation against the enterica diseases, a larger quantity of blood is required for the test than was formerly called for in the cases of the uninoculated. Such quantities are now more easily obtained, and are necessary for the satisfactory diagnosis of paratyphoid fever either in the inoculated or the uninoculated. Hence there have been for the laboratory, since the war, more facilities for the detection of paratyphoid fever, through the more widespread submission of suitable specimens.

FOOD POISONING.

In the month of August, 1923, an outbreak of sickness occurred in a boys' hostel in Henrietta Street, involving 16 out of about 80. Five patients were admitted to hospital and one of them, a boy, died. Suspicion particularly fell upon the meat that was used for making soup. None of this meat was available for examination. Certain other foodstuffs were bacteriologically examined, and an exhaustive examination was undertaken and completed in the laboratory of materials—blood stools and urine—of the patients who were admitted to hospital. Three of these patients were kept under observation for about six weeks, and one for a fortnight, after discharge from hospital. During this period their blood was examined on successive occasions, in order to ascertain whether they had suffered from a direct bacterial infection.

The result of this series of examinations indicated that the outbreak was not due to the ingestion of a living pathogenic organism, but to a toxin such as might have been elaborated by such an organism, though the nature of this toxin was obscure.

A month after this outbreak, a second boy died in this hostel. He was not involved in the first series of cases. On *post mortem* examination the stomach showed a limited area of discrete hæmorrhages, a condition which was also found *post mortem* in the case of the boy who died in August. As with the previous cases, no micro-organism was isolated which could be regarded as the cause of the illness.

A detailed account of the investigation and its results is in course of publication in the "Lancet" by Drs. Wiseman and Macgregor.

ANTHRAX IN GOATSKIN THONGS.

The presence of anthrax infection in dried goatskin thongs used in binding imported fruit boxes having been previously determined in the laboratory (1922), the investigation was continued and 476 additional specimens were submitted for examination in the course of 1923. The thongs were tested relative to the ports from which they had been shipped, and it was found that the specimens from nine out of 21 ports revealed the presence of the bacillus of anthrax. The thongs received from these nine ports numbered 330, and of that number 6·7 per cent. were proved to be infected with anthrax. In the previous year nearly all the positive results were related to ports included in this group of nine.

R. M. BUCHANAN.

SUMMARY FOR YEAR 1923.

Number of specimens submitted by medical practitioners:—

	1923			1922		
	Total	Number +	Per cent. +	Total	Number +	Per cent. +
Diphtheria, ...	4,241	739	17	3,641	584	16
Enteric Fever, ...	361	35	10	307	28	9
Tuberculosis, ...	3,066	542	18	3,034	571	19
Total, ...	7,668	1,316	17	6,982	1,183	17

DIPHTHERIA CONTACT SWABS.

Source	Total	Positive	Percentage Positive
182 Households, ...	564	38	7
1 School, ...	56	2	4
2 Dairies (and 2 Farms), ...	15	2	13
Hospitals, Reception Houses, &c., ...	329	20	6
Totals, ...	964	62	6
Repeated Examinations, ...	130	27	21
		1922	
Totals, ...	1,165	101	9
Repeated Examinations, ...	153	66	43

OPHTHALMIA NEONATORUM.

Examinations of specimens:—

	1923			1922		
	Total	Positive	Percentage Positive	Total	Positive	Percentage Positive
From Medical Officer of Health, ...	739	197	27	769	165	21
From Medical Practitioners, ...	14	4	29	27	5	19
	753	201	27	796	170	21

WASSERMANN TEST.

The following statement shows the number of specimens of blood or fluid examined by Wassermann Test. Under Section (*d*) the number of examinations for other Local Authorities is given, these being undertaken under special agreement with these Authorities, as they have no laboratory facilities of their own:—

Specimens received from—	Total	Positive	Percentage Positive
(*a*) *Practitioners*—			
Original—Blood, ...	1,683	472	28
Cerebro-spinal Fluid,	3	2	66
Duplicate—Blood, ...	338	183	54
(*b*) *Institutions*—			
Original—Blood, ...	4,653	1,609	34
Cerebro-spinal Fluid,	119	37	31
Duplicate—Blood, ...	820	491	59
(*c*) *Medical Officer of Health*—			
Original—Blood, ...	606	195	32
Cerebro-spinal Fluid,	30	7	23
Duplicate—Blood, ...	279	108	38
(*d*) *16 Other Local Authorities*—			
Original—Blood, ...	414	138	33
Cerebro-spinal Fluid,	1	1	100
Duplicate—Blood, ...	123	70	57
Totals—			
Original—Blood, ...	7,356	2,416	32
Cerebro-spinal Fluid,	153	47	30
Duplicate—Blood, ...	1,560	852	54
Totals, ...	9,069	3,315	36
Totals for 1922, ...	8,306	2,947	35

MISCELLANEOUS SPECIMENS.

In addition to the specimens tabulated above, 8,069 of a miscellaneous nature (as compared with 6,444 in 1922) were investigated for the Medical Officer of Health, the Veterinary Surgeon, the Baths Department, the Water Department, and medical practitioners in the City. These may be summarised as follows:—

	Health Department	Medical Practitioners
Diphtheria—Swabs, Milk, Virulence Test, ...	143	11
Enteric Fever—Blood, Urine, Fæces, ...	565	66
Tuberculosis—Urine, Smear, Milk—Exudate,	21	47
Venereal Diseases (other than Ophthalmia Neonatorum), ...	336	611
Cerebro-spinal Fever—Swabs, ...	8	7
Vincent's Angina—Swabs, ...	107	3,250
Bacterial Diagnosis—Blood, Urine, Food-stuffs, Smears, Dust, Water, Calf lymph, Mud, Fungus, &c., ...	76	226
Dysentery—Fæces, Urine, ...	10	40
Paratyphoid, ...	28	96
Malaria—Blood Films, ...	2	15
Ringworm—Samples of Hair, ...	72	—
Anæmia—Blood, ...	4	6
Anthrax—Goatskin Thongs and Brushes, ...	476	—
Food-stuffs, ...	55	23
Milk Samples, ...	130	—
Disinfectant Fluid, ...	10	—
Cytological Examination, ...	—	2
Worms for identification—Fæces, ...	2	—
Malignancy—Tissue, Gland, ...	—	8
Agglutination Test—Blood, ...	4	31
Leucocyte—Blood, ...	—	1
Absorption Test—Blood, ...	—	1
Blood culture for examination, ...	—	1
Vaccines, ...	2	3
Milk bottles for Bacterial Count, ...	3	—
Calf Lymph (Tubes), ...	2	—
Food Poisoning—Fæces, Urine, Blood, ...	3	—
Serological Examination—Blood, ...	—	1
Typhus Fever—Blood, ...	—	2
Parasites—Hair from Fur of Coat, ...	—	1
Spermatozoa—Urine, Smears, ...	—	3
Cell Count—Cerebro-spinal Fever, ...	—	1
Weil Felix Reaction—Blood, ...	—	2
Favus in Finger Nails, ...	—	1
Water for examination, ...	—	1
	2,057	4,457
	6,514	

Hospitals—	Belvidere	Ruchill	Knightswood	Shieldhall	Robroyston
Diphtheria—Swabs, Virulence Test, ...	2	3	98	4	2
Enteric Fever—Urine, Fæces, Blood, Pus, ...	96	6	2	8	—
Tuberculosis—Milk, Sputum,	24	48	26	24	24
Cerebro-spinal Fever—Cultures,	15	—	—	—	—
Vincent's Angina—Swabs, ...	1	—	18	—	—
Typhus Fever—Blood, ...	1	—	—	—	—
Paratyphoid Fever — Blood, Urine, and Fæces, ...	8	2	1	—	—
Dysentery—Fæces, &c., ...	—	13	1	9	—
Bacterial Diagnosis, ...	—	—	3	1	2
Post-mortem Examination of Liver, ...	1	—	—	—	—
Swab—Ulcer,...	1	—	—	—	—
Enterica Bacilli—Fæces, Urine,	—	1	—	2	—
Agglutination Test — Blood,	—	1	—	—	—
Food Poisoning, ...	—	2	—	—	—
Histological Examination, ...	—	—	—	—	2
Venereal Diseases—Gonorrhœa,	—	—	—	—	1
			453		

Veterinary Surgeon—	
Milk Supplies for Tuberculosis—	
Town Cows with disease of udder, ...	191
Country ,, ,, ...	42
Herds supplying Hospitals, ...	498
Duplicate samples for confirmation, ...	41
City Milks—Individual Cows, ...	150
Baths Department—	
Water for bacteriological examination, ...	121
Water Department—	
Samples of water, ...	55
	8,069

Examinations of Loch Katrine Water drawn from laboratory tap, ...	72

Examination of Rats in relation to Plague.—During the year 343 rats were brought to the laboratory and examined for evidence of plague, with negative results.

The following table gives the numbers examined in relation to the places from which they were obtained, and a comparison with last year:—

Year.	From the City	From Shipboard	From Docks	Total	Plague Infected
1923, ...	5	331	7	343	—
1922, ...	19	325	27	371	—

SECTION XII.

PART I.

FOOD POISONING.

Instances of suspected food poisoning coming to the notice of the Department are usually made the subject of special inquiry, and during recent years, probably because of the greater publicity given to these cases, more cases have been reported. The usual history is that sickness has followed a meal of which tinned food, especially meat, has formed part, but it is seldom possible to identify organisms of the food-poisoning type.

These occurrences are generally confined to one or more members of separate households, but in the following instance an outbreak occurred among the inmates of a working boys' home in the east end of the City.

This home accommodates about 80 working lads, all of whom live in and have their meals on the premises. There is a staff of four persons, and of all the inmates who shared the same diet on 13th and 14th August, 15 boys and 1 maid developed abdominal symptoms more or less acute. One of the boys died. The clinical features present were sudden onset of gastro-intestinal pains, accompanied by fever, with severe headache. Convalescence was rapid. The articles of food consumed by all the inmates on 12th and 13th August were investigated, and that upon which most suspicion rested was the meat partaken of on both of these days. The dinner on Sunday, 12th August, had been prepared on the previous afternoon, and consisted of Argentine boneless meat, which had been boiled and served cold on the following day. Dried green peas were boiled in the water left in an iron pot after boiling the meat. The evening dinner consisted of Lorne sausage and potatoes, along with the remains of the peas and gravy left over from Sunday's dinner. None of the food, with the exception of one or two pieces of uncooked sausage, was available for examination.

Discharges and material obtained at post-mortem examination from the fatal case were investigated in the laboratory, but no organism of the recognised food-poisoning type could be identified, although suspicion was attached to another organism found in the intestine, which was also associated, from another case, with intestinal trouble. The cause of the outbreak, however, was thought to be due to a filterable virus.

A complete report and bacteriological tests were made the subject of a paper submitted by Dr. W. R. Wiseman, of the Bacteriological Laboratory, and Dr. A. S. M. Macgregor, Senior Assistant Medical Officer of Health, published in "The Lancet," of 2nd August, 1924 (page 208).

During the year frequent requests were made to Belvidere Hospital, where a supply is kept of Botulinus antitoxin serum, following the issue of the following circular letter to medical practitioners:—

Public Health Department.
Sanitary Chambers,
Glasgow, 17th November, 1922.

Dear Sir (or Madam),

I am instructed by the Board of Health and the Local Authority to invite your attention to the following subjects:—

FOOD POISONING.

When cases of poisoning with serious symptoms have occurred in association with the consumption of unsound food, the Department hitherto has usually been made aware thereof through the Police, and has thus sometimes been enabled to investigate the cause of the outbreak.

The Scottish Board of Health and the Local Authority now desire to obtain more information regarding all such occurrences, whether of slight or severe character, and I shall be glad if, in the event of any such cases coming to your notice, you will be good enough to advise me as soon as possible, so that investigation can be made while it may still be possible to recover samples of the suspected food, vomit, &c., for chemical and bacteriological examination.

The Scottish Board of Health and the Local Authority ask that you will be good enough to co-operate with me in the matter.

BOTULINUS ANTITOXIN SERUM.

By arrangement with the Board of Health, a small stock of Botulinus Antitoxin has been stored at Belvidere Hospital, London Road, Glasgow, and any Medical Practitioner desiring to use it should 'phone the Physician-Superintendent, Dr. Archibald (telephone, Bridgeton 407 and 2564). Instructions with regard to the use of the Antitoxin accompany each supply.

Yours truly,
A. K. CHALMERS,
Medical Officer of Health.

ABSTRACTION OF LEAD BY FRUIT JUICES.—Early in the year complaint was received from an institution in town of a certain cloudiness in marmalades which had been contained in metal vessels, glazed earthenware receptacles not being at the time available in sufficient number. The cloudiness was observed to appear after the orange peel, pulp, and juice, without sugar, had remained in them for a period of about twenty-four hours. A like experience on a former occasion led to an inquiry into the cause of the cloudiness, when lead was discovered, and raised the question whether lead used in enamelling the dishes was being dissolved by the fruit acids. On communicating with the Ministry of Health on the subject, the following information was received:—

> "During the investigation on earthenware vessels two enamelled iron saucepans were treated with hot 1 per cent. citric acid solution for half an hour. One of these was of English make. No arsenic was found, but lead was dissolved to the extent of 0·12 parts per 100,000 of solution. This is equivalent to ·08 grains per gallon. The other saucepan was a sample of old English grey ware (made in America). This did not contain any arsenic, but it yielded 1·6 parts of lead per 100,000 parts of solution, equivalent to 1·1 grains per gallon. These are, of course, small amounts, but it does not follow that all enamels now in use may be found equally resistant to solvent action."

OPERATIONS UNDER THE SALE OF FOOD AND DRUGS ACTS, &c.

The Sale of Food and Drugs Acts. — The total samples examined during 1923 numbered 5,110. 3,725 were informal samples, and 1,385 official or statutory samples. The total samples deemed non-genuine were 452, of which 334 were informal samples and 118 official or statutory samples. In respect of 51 of the latter, proceedings were initiated.

9 contraventions relating to Margarine; one of obstruction of sampling officers; and one of a milk vendor having failed to have his name and address on milk vessel were also dealt with. In one case a cowkeeper and dairyman, with previous convictions, was fined £60—the total fines now paid by respondent amounting, in all, to £133 5s. 6d.

The total fines and expenses imposed and recovered during 1923 were £320 5s. The details of operations under these Acts are contained in the subsequent tables and Appendix Table XXIII.

Abstract of Samples Examined.

	Informal		Statutory		Percentage Adulterated		Percentage of Totals.	
Article	Taken	Non-Gen.	Taken	Non-Gen.	Inf.	Stat.	Inf.	Stat.
Milk and Cream, ...	2,489	249	917	79	10·0	8·6	66·8	66·2
Milk Products (Butter, Cheese, &c.), ...	636	30	168	7	4·7	4·2	17·1	12·1
Cereals.	9	—	20	—	—	—	0·2	1·4
Spirituous Liquors,	193	32	95	24	16·6	25·2	5·2	6·9
Drugs.	204	15	41	6	7·4	14·6	5·5	3·0
Flavourings and Condiments, ...	81	2	76	—	2·5	—	2·2	5·5
Miscellaneous Foods,	113	6	68	2	5·3	2·9	3·0	4·9
Totals,	3,725	334	1,385	118	9·0	8·5	100·0	100·0

ABSTRACT OF INFORMAL AND STATUTORY SAMPLES OF SWEET MILK EXAMINED DURING 1923.

INFORMAL				MONTH	STATUTORY			
umber Taken	Number Presumed Non-Genuine	Average Percentage Composition			Number Taken	Number Presumed Non-Genuine	Average Percentage Composition	
		Fat	Non-Fat				Fat	Non-Fat
186	32	3·29	8·73	January, -	74	9	3·35	8·76
208	28	3·33	8·72	February, -	78	6	3·34	8·72
217	28	3·30	8·72	March, -	81	12	3·34	8·65
205	23	3·35	8·70	April, - -	85	10	3·33	8·72
176	9	3·36	8·74	May, - -	78	4	3·27	8·66
198	18	3·28	8·81	June, - -	68	4	3·31	8·80
139	12	3·30	8·70	July, - -	64	3	3·32	8·70
261	29	3·33	8·66	August, -	74	2	3·34	8·64
222	14	3·59	8·67	September, -	70	3	3·63	8·63
200	18	3·65	8·65	October, -	80	6	3·61	8·62
249	21	3·46	8·70	November, -	80	11	3·53	8·66
184	14	3·42	8·71	December, -	77	8	3·41	8·70

Preservatives in Milk.—In no sample of milk examined during 1923 were chemical preservatives present. In 2 samples of cream boric acid was found in the proportion of ·21 per cent. and ·37 per cent. As is generally known, cream (*i.e*, "tea cream," containing about 10 per cent. of fat) as sold in dairies has practically ceased to be obtainable for some years now. Its disappearance was originally due to the exigencies of the war, and with the return to peace conditions its reappearance was looked for, but the "trade" for various reasons has decreed otherwise, and the sale of whole milk alone prevails. The form in which cream is now mainly sold is that known as "double cream," put up in containers and sold by grocers, but for which, when "tea cream" was obtainable, there was little sale. As the demand for cream is still insistent, especially as a supplementary food for infants and invalids, the sales of "double cream" have now reached considerable dimensions compared with previous periods. To enhance its keeping qualities boric acid as a preservative is invariably present, and in England, in terms of the Public Health (Milk and Cream) Regulations, 1912 and 1917, the purchaser is made fully aware of the nature of the article he is asked to accept in response to a demand for cream, in that each container must bear a label in the following terms:—"Preserved Cream, containing boric acid not exceeding ·4 per cent. Not suitable for infants and invalids."

The desirability of issuing like regulations for Scotland has again been urged upon the Scottish Board of Health, who in reply state they do not see their way to comply therewith pending the report of a Committee appointed by the Minister of Health in July, 1923, to inquire into the use of preservatives and colouring matters in food.

Cream preservatives came under suspicion as to the presence therein of arsenic from impure borax, and examination was made of the various preparations supplied largely to the trade under proprietary names. These were found to consist mainly of a mixture of borax and boric acid, and, with one exception, were found satisfactory. In the latter no less than 200 parts of arsenic per million were found. Proceedings were instituted against the vendor, and a penalty of £10 imposed. As far as could be traced, all consignments of the lot in question sent out were recalled and destroyed.

Boric Acid in Sponge Cake.—The presence of boric acid in sponge cakes, due to the use of egg yolks—imported from China—as an ingredient thereof, has been the subject of negotiation between the Ministry of Health and the Importers' Association. The yolks, it may be explained, are separated from the "whites" by machinery, and the addition to the former of 2 per cent. of boric acid is deemed necessary to ensure their preservation during transit. The "whites" are imported as dried albumen, and, when macerated in water and mixed with yolks, form the liquid whole egg much in use by bakers. With a view to restricting its use in sponge goods used for food of infants and invalids, it has now been amicably arranged, *inter alia*, that yolks or liquid whole egg shall not contain more than 1·5 per cent. and 1 per cent. respectively of boric acid, and that all invoices shall bear a statement that liquid egg is not to be used as an ingredient of sponge fingers or biscuits, or of 1d., 1½d., and 2d. plain sponge cakes. 15 samples of different bakers' produce were procured and examined, and with one exception found satisfactory. In the latter, ·0149 per cent. boric acid was present, and, on enquiry being made, was found to be due to an inadvertence.

Colouring Matter in Milk.—5 samples were found to contain annatto, contrary to the Milk and Dairies (Amendment) Act, 1922. Proceedings were instituted in connection with three of the samples, and fines amounting to £7 imposed.

Condensed Milks.—The Public Health (Condensed Milk) Regulations, 1923, became operative on 1st November last, and established definite standards of composition in respect of milk-fat and total milk-solids and for the equivalents of the contents of tin being expressed in pints on label. In the case of skimmed or machine-skimmed milk, it further provides that the label shall in addition bear the words " Unfit for Babies."

16 samples of both home and foreign produce were procured and examined, and with two exceptions their composition and labelling were found to conform to the requirements of regulations. In the latter the samples were 0·24 per cent. and 1·16 per cent. below the limits in respect of all milk-solids.

Designated Milks.—The establishment of definite data in regard to the conditions pertaining to the production and sale of graded milk under licence has been the subject of two Orders and two amending Orders by the Scottish Board of Health. The requirements may be said to have now attained some degree of permanency, and, as applicable from 1st January, 1924, may be briefly summarised as follows:—

Special Designation.	Source.	Method of Distribution.	Bacterial Content before Delivery to Consumer.	Min. Fat Content
Certified Milk, -	From non-reacting Tuberculin Tested Cows.	Bottled by the Producer.	To contain (*a*) not more than 30,000 bacteria per c.c. and (*b*) no coliform bacillus in $\frac{1}{10}$ c.c.	3·5 °/o
Grade "A" (Tuberculin Tested) Milk	Do.	Bottled by the Distributor.	To contain (*a*) not more than 200,000 bacteria per c.c. and (*b*) no coliform bacillus in $\frac{1}{100}$ c.c.	3·5 °/o
Grade "A" Milk,	From clinically examined cows.	Do.	Do.	3·5 °/o
Grade "A" Milk, (Pasteurised),	Do.	Do.	To contain (*a*) not more than 30,000 bacteria per c.c. and (*b*) no coliform bacillus in $\frac{1}{10}$ c.c.	3·5 °/o
Pasteurised Milk, -	Ordinary market milk retained at 145° to 150° F. for 30 minutes and immediately cooled to at least 50° F.	—	To contain not more than 100,000 bacteria per c.c.	*3 °/o

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* Vide Sale of Milk Regulations, 1901.

These designated milks, together with (*a*) untreated or raw milk and (*b*) milk that has been treated by the "flash" method, create seven possible grades of milk potentially available; a confusing choice with which to confront the consumer.

A simpler grouping may be reached by remembering that Certified Milk and Grade A (Tuberculin Tested) Milk are both from cows which have been tested by tuberculin, while Grade A Milk and Grade A Pasteurised Milk are from cows which have only been clinically examined but not tested by tuberculin. All of the foregoing, however, must have 3·5 per cent. content of fat, whereas the remaining three classes of milk need not have more than 3 per cent. At present only one firm within the City has been licensed to deal in designated milks, viz., "Certified" and "Grade A (Tuberculin Tested)." Their cost to the consumer is, approximately 70 to 85 per cent. in the case of "Certified," and 30 to 50 per cent. in the case of "Grade A (Tuberculin Tested)" above that of milk as ordinarily retailed; and their sales, as ascertained from the records kept, in terms of the Order, may be said to average 10 gallons of the former and 170 gallons of the latter daily.

With reference to the new definition of "pasteurised," it may be stated that for many years 80 to 90 per cent. of the City's milk supply has been submitted before distribution to pasteurisation by the "flash" method—*i.e.*, heated to a temperature of about 165 deg. F. momentarily, and immediately cooled. Such milk, however, has not as a rule been sold or purchased as pasteurised milk, but invariably as "milk" *simpliciter*, or not infrequently as "sterilised" milk.

With commendable enterprise distributors have not been slow to install plant approximately conforming to the requirements for the production of pasteurised milk as now legally defined, but the practical difficulty, as ascertained by control tests, is the subsequent retention of the milk under conditions that will ensure its being within the bacterial limits until delivery to the *consumer*.

It will be readily appreciated that, in order to abtain supplies for the population of a highly urbanised area like Glasgow, the transport of milk for considerable distances is necessary. Consignments are forwarded by producers only once daily, so that one half of the supplies (being the previous evening's milking) is 12 to 16 hours old on arrival. Its immediate pasteurisation by the consignee-distributor before delivery to the retailer, and especially in summer, is therefore a commercial necessity, and *consequently the greater mass of the milk supply is from* 20 *to* 36 *hours old ere it reaches the consumer.*

If, therefore, the conditions and benefits pertaining to pasteurised milk, as now defined, are to materialise, a much closer co-operation amongst producers, distributors, and retailers would appear to be a necessity, particularly in regard to methods and equipment, so as to ensure, in the first instance, that a milk on arrival is of low bacterial count, *i.e.*, of at least "Grade A" quality; and, secondly, that its retention—after treatment by the distributor and while in the hands of the retailer—is under inhibitory conditions as to temperature, viz., a maximum of 50 deg. F.

Results of Examination of Samples of Designated Milks during 1923.

				Report.			
					B. Coli.		
No.	Designation.	Date and Time of Sampling.		Bacteria per c.c.	$\frac{1}{10}$ c.c.	$\frac{1}{100}$ c.c.	Remarks.
1	Pasteurised,	22-5-23,	11.30 a.m.,	69,453	–		Taken direct from cooler.
2	Pasteurised,	23-5-23,	12 noon,	31,766	–		Repeat of No. 1 taken at approximate time of delivery to consumer.
3	Grade "A" (T.T.)	7-6-23,	3 p.m.	39,733		+	
4	Certified,	8-6-23,	9 a.m.	245,000	–		
5	Grade "A" (T.T.)	26-6-23,	1.40 p.m.,	30,916		–	
6	Certified,	27-6-23,	9 a.m.	29,853	–		
					Coliform bacilli.		
7	Pasteurised,	23-7-23,	9 a.m.	49,833		–	
8	Grade "A" (T.T.)	8-8-23,	11.10 a.m.	564,750		+	
9	Pasteurised,	9-8-23,	9 a.m.	66,066	+		Taken direct from cooler.
10	Certified,	9-8-23,	9.20 a.m.	7,050	–		
11	Pasteurised,	9-8-23,	11.15 a.m.	9,426	–		Taken direct from cooler.
12	Pasteurised,	10-8-23,	10 a.m.	2,194,000	+		Repeat of No. 9 taken at approximate time of delivery to consumer.
13	Pasteurised,	10-8-23,	11 a.m.	247,750	+		Repeat of No. 11 taken at approximate time of delivery to consumer.

			Report.			
				B. Coli.		
No.	Designation	Date and Time of Sampling.	Bacteria per c.c.	$\frac{1}{10}$ c.c.	$\frac{1}{100}$ c.c.	Remarks.
14	Pasteurised,	17-8-23, 9.45 a.m.	65,900	+		Taken direct from cooler.
15	Pasteurised,	17-8-23, 11.50 a.m.	88,750	+		Taken direct from cooler.
16	Pasteurised,	18-8-23, 9.45 a.m.	404,600	+		Repeat of No. 14 taken at approximate time of delivery to consumer.
17	Pasteurised,	18-8-23, 11 am.	263,600	+		Repeat of No. 15 taken at approximate time of delivery to consumer.
18	Certified,	5-9-23, 11.30 a.m.	2,450	–		
19	Grade "A" (T.T.)	5-9-23, 11.30 a.m.	64,050		+	
20	Certified	6-10-23, 9 a.m.	7,800	–		
21	Grade "A" (T.T.)	6-10-23, 9 a.m.	172,750		+	
22	Pasteurised,	10-10-23, 12.10 p.m.	112,200	+		Taken direct from cooler.
23	Pasteurised,	11-10-23, 1 p.m.	211,400	+		Repeat of No. 22 taken at approximate time of delivery to consumer.
24	Certified,	6-11-23, 9 a.m.	4,300	–		
25	Grade "A" (T.T.)	6-11-23, 9 a.m.	87,100		–	
26	Certified,	11-12-23, 9 a.m.	9,150	–		
27	Grade "A" (T.T.)	11-12-23, 9 a.m.	16,600		–	

Biological Test Samples.—The examination of milk as consigned by farmers to the City for the presence of tubercle bacilli was recommenced on 15th May last, and sampling confined to one of the adjacent large milk-producing counties. Of the first 50 samples examined, 6 were found to be positive, equivalent to 12 per cent. The total examined to end of year was 126, of which 10 were positive, equivalent to 7·9 per cent.

In addition, 47 samples of milk and other foodstuffs were, on various grounds, submitted for bacteriological examination.

Drugs.—In a prosecution against a Partick firm of chemists and druggists in respect of the sale of camphorated oil, which was found to be 25 per cent. deficient in camphor, the defence was specially conducted on behalf of the respondents by the Chemists' Defence Association. It was contended (1) that the British Pharmacopœia did not establish a standard for camphorated oil, but merely provided a recipe for its manufacture, in that it did not prescribe any test to which the finished product should conform; and (2) that it was incompetent to aver that the article alleged to be disconform to the British Pharmacopœia was necessarily sold in contravention of the Sale of Food and Drugs Acts, to which the former had no legal relationship.

Four registered pharmacists were examined in support of the first contention. In cross examination, however, their evidence was found to be somewhat anomalous and contradictory, as it was shown and admitted that in their purchases of camphorated oil and other drugs they insisted on conformity with the British Pharmacopœia.

The Sheriff made avizandum, and subsequently convicted and fined the respondents.

While the well-known cases of White *v.* Bywater and Dickins *v.* Randerson may be said to establish the British Pharmacopœia as the standard to which any drug purchased under the definition therein, or its synonym, should conform, the case of Hudson *v.* Bridge makes a distinction, and again in the case of Boots *v.* Cowling a commercial standard apart from the British Pharmacopœia was successfully pleaded.

In order to put the question of the British Pharmacopœia as a standard in relation to the sale of any drug outwith the region of debate it is desirable that legal imprimatur should be given to it by the incorporation in the Sale of Food and Drugs Acts of Section 15 of the Pharmacy Act, 1868, which requires pharmacists to dispense or compound any drug of the British Pharmacopœia solely in accordance with the formula therein. Further, the recognition of any commercial standard apart therefrom, or a distinction in the required composition of an article bought from a grocer as against that made from a chemist and druggist, as has been given effect to by some courts, should be eliminated.

Sale of Food Order, 1921.—6 prosecutions were taken against dealers for contraventions of the Order, all of which were in respect of imported eggs described either as "fresh" or "new laid," but without the description including the word

" imported " or a word or words disclosing the country of origin.

Penalties amounting to £21 were imposed.

Cooking Fats.—Consideration was given to the nature and quality of cooking fats as used by fish restaurateurs. Under the Sale of Food Order, 1921, standards of composition for edible fats were enacted, and several prosecutions were successfully taken, but by an Amending Order, dated 14th December, 1921, these provisions were revoked.

15 samples of different manufacturers' produce were obtained in fish restaurants and submitted to chemical and bacteriological examination. The results of the latter examination showed that, with one exception, all the samples were sterile, or only contained a few harmless organisms such as are found in air. The chemical examination gave the following approximate composition:—

Sample No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Beef Fat, -	54	96	100	100	53	100	64	72	82	64	59	62	71	100	74
Cotton Seed Oil, -	46	4	—	—	47	—	36	28	18	36	41	38	29	—	26
Free Fatty Acids, -	·56	·61	·70	1·61	·32	1·45	·51	·20	·38	·21	·24	·14	·21	·19	·22

The City Analyst states:—" The composition of the samples conforms to ordinary trade standards. With the exception of 4 and 6, the amount of free fatty acids was in each case considerably below 1 per cent.—proof of the absence of ' rancidity.' "

Butter and Margarine Acts.—4 applications for registration under these Acts were received by the Local Authority—one as a wholesale dealer in margarine, and three for use of premises as a butter factory, *i.e.*, " premises on which, by way of trade, butter is blended or re-worked." The premises, being found satisfactory, were recommended for certification. At the close of the year the total premises on the register were 235, 206 being premises used for wholesale dealing in margarine; 9 for wholesale dealing in milk-blended butter; 19 as butter factories; and 1 as a margarine manufactory. Periodic inspection and sampling were maintained in butter factories; in one a sample was found to contain an excess of moisture, and the occupier was cautioned.

Food Inspection.—11,230 inspections were made in markets, shops, and stores *re* unsound or unwholesome foods. 39 lots were adjudged unfit for food and dealt with accordingly, amounting, *in cumulo*, to 30 tons 15 cwts. 3 qrs. 12 lbs., exclusive of 56 eggs.

The potential dangers associated with certain canned foods where the period of canning has become remote were in evidence in respect of a consignment of Californian apricots which came under suspicion, having been in stock more than two years. An external examination gave no indication of the contents being other than fresh and wholesome, but, as erosion and discolouration of the internal surfaces were in evidence, their sale was precluded pending a biological and chemical examination of contents. In the interregnum the contents of one of the tins was submitted to a physiological test, and found to give rise to nausea. Bacteriologically the samples were found to be normal and sterile, but the chemical examination showed the presence of from 5·12 to 5·37 grains of metallic tin per lb.

As anything approximating to 2 grains per lb. is potentially deleterious to health, the consignment — consisting of 4,979 1-lb. tins—was deemed unwholesome and destroyed.

A further lot of 400 tins of pork and beans was found to contain 4·77 grains of metallic tin per lb., and was dealt with in like manner.

The greater safety accruing from the more effectual sterilisation possible with canned foods, as compared with those packed in glass containers, has of late been strongly urged officially, owing to a recent tragic occurrence; but an administrative advantage would be conferred were it made compulsory—as in other countries—that the date of packing be declared in some agreed-upon manner upon all canned or glassed foods.

Dairies.—The number of dealers in milk on the register at end of year was 1,517, against 1,490 in 1922. The total inspections of premises numbered 21,490, in connection with which 98 notices were issued in respect of minor breaches of the Orders or Regulations, or of alterations and improvements deemed requisite.

7 prosecutions were taken against dealers under the Orders, of which 4 were for failing to register; 1 for using dairy premises as a sleeping apartment; 1 for the storing of milk in unsuitable premises; and 1 for the storing of milk vessels in dwelling-house. The fines imposed totalled £16.

The revision of existing regulations referred to in previous report is still *sub judice.*

Byres.—Byres within the City area number 52—a reduction of 1 from previous year. The premises are licensed for a total of 974 milch cows, and the average number kept is 697, compared with 1,007 and 725 in 1922. The total inspections made numbered 426, in connection with which 25 notices were issued directing attention of licensees to minor breaches of regulations.

With the outbreak of foot-and-mouth disease routine inspection of byres was forthwith suspended, so as to minimise the possibilities of the carriage of infection.

DETAILS OF CITY BYRES AS AT 31ST DECEMBER, 1923.

	With Grazing Facilities			Wholly Stall-Fed		
Cubic space per Cow	No. of Byres	No. of Cows licensed for	Average No. kept	No. of Byres	No. of Cows licensed for	Average No. kept
At 600 cubic ft.,	38	767	531	6	78	50
At 800 ,,	7	89	63	1	40	35
Totals,	45	856	594	7	118	85

Ice Cream Shops.—The vendors of ice cream on the Register at end of year numbered 721, as against 691 in 1922. 8,866 inspections were made, and 50 notices were issued in regard to minor breaches of regulations or repairs, &c.

Proceedings were instituted against vendors in 5 instances, of which 2 were for using premises as sleeping apartments; 2 for failing to register; and 1 for drying body clothes in ice cream premises.

The total fines imposed were £13.

A. B. FINDLAY,
Senior Food Inspector.

31st March, 1924.

TABLE SHOWING NATURE AND NUMBER OF TOTAL SAMPLES PROCURED AND EXAMINED DURING 1923.

Nature of Sample	Informal		Statutory	
	Number procured	Number non-genuine	Number procured	Number non-genuine
Almonds, ground,	2	1	2	1
Apricots, canned,	2	2	—	—
Barley, ...	—	—	2	—
Borax, ...	9	3	4	2
Boric Acid, ...	1	—	—	—
Butter, ...	625	30	167	7
Calcined Mag., ...	3	—	2	1
Camphor, ...	2	—	—	—
Cascara Sagrada.	5	—	—	—
Cheese, ...	9	—	1	—
Cinnamon, ground,	19	2	21	—
Cocoa, ...	5	—	—	—
Coffee, ...	54	—	15	—
Cooking Fat, ...	—	—	1	—
Cream, ...	20	—	5	—
Cream Preservative,	2	—	2	1
Cream of Tartar,	18	2	15	—
Custard Powder,	1	—	—	—
Dripping, ...	1	—	9	—
Egg Yolk, ...	—	—	1	—
Epsom Salts, ...	5	—	—	—
Flour, ...	1	—	2	—
Flour, S.R., ...	2	—	4	—
Flowers of Sulphur,	9	—	4	—
Fruit Salad, canned,	3	—	—	—
Gin, ...	6	—	—	—
Ginger, ground,	13	—	13	—
Green Peas, canned,	3	—	—	—
Gregory's Mixture,	16	—	1	—
Ice Cream, ...	2	—	—	—
Lard, ...	15	—	30	1
Lemonade, ...	1	—	—	—
Linseed, crushed,	5	1	1	—
Liquorice Powder,	10	—	—	—
Lisbon Wine, ...	1	—	—	—
Margarine, ...	6	—	10	—
Mercury Ointment,	2	2	1	—
Milk, evaporated,	1	—	—	—
Milk, cond. F.C.,	6	—	—	—
Milk, con. Mac. skmd.	9	2	—	—
Milk, skimmed, ...	8	1	3	1
Milk, sweet, ...	2,445	246	909	78
Mustard, ...	3	—	5	—
Oatmeal, ...	2	—	2	—
Oil, eucalyptus, ...	3	—	—	—
Oil, camphorated,	71	7	7	2
Oil, castor, ...	5	—	—	—
Oil, olive, ...	27	—	1	—
Pepper, black, ...	7	—	5	—
Pepper, white, ...	33	—	30	—
Pork & Beans, cnd.	2	1	—	—
Preserves, ...	2	1	—	—
Rice, ...	1	—	4	—
Rum, ...	39	7	16	3
Seidlitz Powder,	5	—	—	—
Sponge Cakes, ...	15	1	—	—
Sugar, ...	1	—	—	—
Tapioca, ...	3	—	6	—
Tartaric Acid, ...	6	—	3	—
Vinegar, ...	6	—	2	—
Whisky, ...	147	25	79	21
Totals, ...	3,725	334	1,385	118

DETAILS OF SAMPLES IN WHICH PROCEEDINGS WERE INITIATED DURING YEAR 1923.

Number of Complaints	Nature of Sample and Alleged Offence	Number of Convictions	Amount of Fines imposed		Number Dismissed or found Not Proven	Number Deserted Simpliciter	Number Withdrawn and Expenses Paid	Amount of Expenses Paid	
			£	s.				£	s.
19	Sweet Milk—Deficient in Milk-Fat, ...	17	84	6	1	—	1	2	2
11	Sweet Milk—Deficient in Milk solids other than Fat, ...	11	55	3	—	—	—	0	0
3	Sweet Milk—Deficient in Milk Fat and Milk solids other than Fat,	2	15	0	—	—	1	2	2
1	Skimmed Milk—Deficient in Milk Solids other than Fat,... ...	1	60	0	—	—	—	0	0
5	Butter—Contained Fat other than Milk-Fat,	4	22	12	—	1	—	0	0
1	Butter—Contained excess Water, ...	1	3	0	—	—	—	0	0
5	Margarine—Failing to label, ...	5	7	0	—	—	—	0	0
2	Margarine—Failing to use statutory wrapper,	2	2	10	—	—	—	0	0
2	Margarine—Describing it by unapproved name, other than margarine,	2	2	10	—	—	—	0	0
1	Lard—Contained Cottonseed Oil and Beef Stearine, ...	1	2	0	—	—	—	0	0
1	Cream Preservative—Contained 200 parts Arsenic per million, ...	1	10	0	—	—	—	0	0
2	Borax—Contained 70 and 146 parts Arsenic per million, ...	2	10	0	—	—	—	0	0
2	Camphorated Oil—Deficient in Camphor, ...	2	4	0	—	—	—	0	0
5	Whiskey—Contained excess Water, ...	3	31	0	2	—	—	0	0
1	Obstruction, ...	1	5	0	—	—	—	0	0
1	Failing to have name and address of sender on milk vessel, ...	1	2	0	—	—	—	0	0
62		56	316	1	3	1	2	4	4

PART 2.

AIR PURIFICATION—SMOKE ABATEMENT.

The smoke problem is a complex one, and is both hygienic and economic in its appeal. The causes of a smoke-polluted atmosphere are two-fold, namely, the factory and the dwelling-house; and of the two the latter is now generally admitted to be the worse offender in respect of the quantity and also of the quality of the smoke produced.

This is because of the relatively greater proportion of unconsumed matter which escapes from domestic fires, and the greater amount of tarry hydro-carbons in the smoke produced, in consequence of the lower temperature of the domestic fire, especially the lower surface temperature. It is estimated that 35 million tons of raw coal are burned annually in domestic fire-places in Great Britain, as against 114½ million tons of raw coal in industrial furnaces, but the unconsumed combustible matter passing off as smoke from the former is computed to be 5-6 times greater than that which escapes from the latter.

The actual harm that a smoke-laden atmosphere does to the health of the community is not publicly realised, else there would be a greater outcry for remedial measures to be taken to cope with it. No doubt, the public conscience has rebelled to a greater extent within recent years than it did formerly in tolerating the emissions of smoke from chimneys in restricted areas when these have influenced individual conditions of living. But, notwithstanding all that has been said and written, it is still a most difficult thing to arouse widespread public interest in the subject of smoke abatement, and public interest is necessary to carry us on to a solution of this problem.

The atmosphere of Glasgow has very materially improved during the twenty-five years of Health Committee administration of the smoke penalties' section of the Further Powers Act. 1892, and this is shown by the fact that, in the years 1899 and 1900, the intimations of excess smoke given to furnace users by the Smoke Inspectors amounted to 17·5 per cent. of the chimneys observed, whereas for the last two years, 1922 and 1923, they amounted only to 1·7 per cent., and that notwithstanding that in the former years an excess meant five minutes' black smoke, while in the two latter years two minutes' dense smoke sufficed.

Improvements.—There are at least fifty works in Glasgow which were very prolific smoke producers in the early years, but which, by the substitution of mechanical stoking for hand-firing, or the installation of electric motors for power production, or the use of gas in metallurgical and other furnaces, have so changed the character of their chimneys that dense smoke is never seen to issue from them now.

The following is a summary of recorded improvements made to furnaces towards smoke abatement during the twenty-five years of Health Committee administration:—

New steam boilers installed to give increased power,	133
Mechanical stokers fitted to steam boilers, replacing hand-firing,	243
Supplementary air smoke - preventing appliances fitted to steam boilers,	232
Gas engines, using producer or town gas, replacing steam boilers,	79
Electric motors installed which have replaced steam boilers,	140
Furnaces in which anthracite or gas coke was substituted for bituminous fuel,	115
Furnaces in which gaseous fuel was substituted for coal firing,	111
Improvements made to metallurgical furnaces towards smoke abatement,	13
New chimneys erected or existing chimneys heightened to give better draught,	98

Five of the fifty-three improvements made during 1923 went the full length of total smoke prevention by the installation of electric motors or other means, which resulted in a corresponding number of chimneys becoming inoperative. Perhaps the most notable of these refers to a factory in the Cowcaddens district made prominent by having two chimneys in close proximity, one of which was entirely free of smoke production, while from the other dense smoke frequently issued, so much so that it was the subject of seven prosecutions. The reason for the difference was that the two steam boilers connected with the latter chimney were hand-fired, while the larger boiler connected with the other and more prominent chimney was mechanically stoked. The two hand-fired boilers have been taken away and the chimney taken down, and this has been made possible by internal reconstruction of the heating plant and the introduction of modern machinery for power production and its more efficient utilisation. The work referred to is quite as capable, and even more so, of meeting any industrial demand made upon it than it formerly was, and the smokeless condition of the remaining chimney is a refutation of the statement often made that it "would be a pity of Glasgow without its smoke."

Prosecutions. — Sixty-six prosecutions were taken against firms issuing smoke in excessive quantities during 1923, and convictions were obtained in sixty-two instances. Thirty-four of these were for first offences; twelve were for second offences; seven were for third offences; three were for fourth offences; two were for fifth offences; three were for sixth offences; and one for a ninth offence within the preceding five years.

The average fines imposed were 19s. 8d. for first offences; 20s. 5d. for second offences; 56s. 2d. for third offences; 28s. 10d. for fourth offences; 26s. 3d. for fifth offences; 63s. for sixth offences; and £5 for the ninth offence.

Although the maximun fine for a first offence is only 40s., and £5 for a second or subsequent offence, the maximum penalty was imposed only six times in thirty-four first offence cases, and once in twenty-eight second and subsequent offence cases, and that was for a ninth offence within the preceding five years.

Small Vertical Boilers.—The small vertical steam boiler again comes out on the top in the list of prosecutions as being the most smoke-producing boiler in the City in proportion to the number in use. It is also the most uneconomical as regards heat efficiency, but it is a boiler which takes up little floor space, and, in consequence, it is found in all sorts of out of the way places, in warehouses, restaurants, and in small workshops. It is not a suitable boiler for smokeless combustion of bituminous coal, and yet that is the fuel most favoured by its users. It is too small for mechanical stoking, and has never so far been successfully fitted with a supplementary air smoke-preventer. Smokeless fuel is the only hope for this type of boiler.

Steam Wagons.—The steam wagon is still causing trouble by issuing smoke of an objectionable nature while passing along the streets of the City. Action was taken in ten instances during 1923 against offending users of such vehicles, and in every case a conviction was recorded.

The use of steam coal is more general now than it was a year ago, and, if carefully managed, such fuel can be burned in steam wagon boilers without producing dense smoke, but its volatility, which is round about 24 per cent., is too high to be satisfying, and until lower volatility coal or coke is exclusively used, this nuisance will, to a greater or less extent, continue. The practice of the Court is to require the issue of dense smoke to warrant conviction, and, much of the objectionable smoke which is produced by steam wagons cannot be included in that category. It is hoped that the advent of low carbonisation coke will help towards the solution of this part of the smoke problem.

Tar Melters. — On three occasions only during the year was there cause to prosecute the users of tar melters, two of whom were convicted for fourth offences and fined 2s. 6d. and 42s. respectively, while in the other case the charge was found not proven. The evidence for the defence in the latter case was to the effect that gas coke was an unsuitable fuel when used alone for pitch melting, and it was in consequence of contrary statements made by the Smoke Inspectors that the demonstration referred to in last year's report was made, and which proved conclusively that the latter were right in their contention that a tar melter furnace can be kindled and maintained in sufficiently good heat to melt pitch satisfactorily, with gas coke as fuel.

The demonstration has been worth while, for since it was made very little coal is being used in these appliances. When coal is used, it has generally been in the circular rock asphalt melters, and these are kindled in the yards and brought to the scene of operations with the fuel in a semi-incandescent condition.

The smoke problem is largely an economic one to the furnace user, and the question therefore to him is, "Does smoke prevention pay?" Can he obtain a high heat efficiency in his coal-burning furnaces, and, at the same time, prevent the emission of smoke in excessive quantities from his chimney? In my opinion he can, but to do so he must use the best practicable means at his disposal.

The greater proportion of coal-burning furnaces have no special means provided for smoke prevention, and, with ordinary hand-fired boilers, which are the furnaces most commonly met with, it is left to the fireman to keep the firedoors open for a short time after stoking. This crude, though successful, method of preventing smoke tends neither to economy nor rapidity of steam generation, with the result that the men concerned occasionally avoid doing so, and therefore much of the smoke discharged into the atmosphere is reckoned as due to careless firing.

Notwithstanding that classes for steam boiler firemen have been in existence for eight years, there is still a great deal of irresponsible and unskilful hand-firing, and hence the need for mechanical stokers wherever they can be applied, and they can be applied to all existing boilers other than those of the small vertical type. Experience shows that, when mechanical stoking replaces hand-firing, there is invariably a marked reduction in the smoke output, and, in many instances, smoke has been entirely abolished, and with resultant economy.

The most smokeless mechanical stokers in Glasgow are those of the coking class.

For water-tube boilers, the chain grate stoker gives the best results, and there are steam boilers in the City fitted with this stoker, from which smoke even of faint density is never seen to issue. For fire-tube boilers, the underfeed stoker and the overfeed reciprocating fire-bar coker gives the greatest degree of smokelessness in working. Many types of stokers have been tried in Glasgow, but those mentioned have stood the test best, and as smoke preventers are practically perfect so long as they are not overworked.

Smoke Abatement League Classes.—The evening classes for the instruction of steam boiler firemen and others having to do with furnace management were continued during the winter session of 1923-1924, which was the eighth session since their inception in 1910.

The classes were held in the new City Chambers, and comprised an ordinary class for first year men, and an advanced class for engineers and firemen who wished to go further into the subject of fuel combustion. At each class twelve lectures were given and facilities were granted for attendance at either or both classes on payment of a single fee of 2s. 6d. Fourteen men enrolled in the former class and thirty in the latter, twenty-nine of whom qualified for full attendance certificates, while the average attendance was 85 per cent. and 90·28 per cent. respectively.

At the examination held at the close of the session, sixteen men presented themselves, thirteen of whom gained 70 per cent. of marks and over, and thus qualified for Merit Certificates, while the two best in the ordinary class and the three best in the advanced class were awarded book prizes.

The tuition at the classes, is undoubtedly, an important factor contributing to the purification of the atmosphere, because, while there are probably over 370 men who have attended the classes for one or more sessions daily at work stoking boiler furnaces, the records show that only seven of them have been involved in the 191 prosecutions that have been taken against offending firms during the last three years.

Soot Collecting Gauges.—The work of ascertaining the extent of atmospheric pollution in Glasgow by analysis of the rain deposit collected in the nine soot gauges situated throughout the City continues. The carboys are brought in on the last day of each month and taken to the Corporation Laboratory, where the matter collected is analysed by the Corporation Chemist, and tabulated under various headings. A table showing the results of the year's deposit is given on page 181.

The heavy rainfall registered during 1923 had the effect of more thoroughly washing the atmosphere, and the result is a heavier deposit of solids than for the year preceding. The gauges are placed at selected spots in the public parks, but it is exceedingly difficult to find situations where there are no local disturbing effects.

COLIN B. PARK,
Senior Smoke Inspector.

3rd May, 1924.

AVERAGE DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR EACH MONTH OF 1923.

METRIC TONS PER SQUARE KILOMETRE

	Month	Rainfall in Millimetres	Insoluble Matter				Soluble Matter				Included in Soluble Matter							
			Tar	Carbonaceous other than Tar	Ash	Total Insoluble Matter	Loss on Ignition	Ash	Total Soluble Matter	Total Solids, 1923	Sulphate as (SO_3)	Chlorine as (Cl.)	Ammonia as (NH_3)	Total Solids, 1922	Total Solids, 1921	Total Solids, 1920	Total Solids, 1919	Total Solids, 1918
Mean of 9 Stations,	Jan.,	79·06	·06	·97	1·72	2·75	2·10	2·90	5·00	7·75	1·36	·96	·16	8·68	10·63	13·09	13·86	19·92
,,	Feby.,	85·73	·06	1·28	2·05	3·39	1·88	2·75	4·63	8·02	1·45	·45	·21	7·00	6·42	9·95	11·56	13·75
,,	March,	40·25	·04	·83	1·75	2·62	·78	1·98	2·76	5·38	1·03	·24	·11	5·53	9·37	9·49	13·81	13·16
,,	April,	79·01	·12	1·35	2·67	4·14	1·78	2·40	4·18	8·32	1·55	·31	·18	8·58	6·72	7·97	10·53	5·94
,,	May,	53·87	·07	1·22	3·07	4·36	1·28	2·75	4·03	8·39	1·19	·58	·10	7·52	8·58	12·84	7·17	14·16
,,	June,	25·11	·12	1·74	3·24	5·10	·73	1·19	1·92	7·02	·67	·35	·06	8·64	8·00	10·51	13·35	7·93
,,	July,	83·33	·09	2·10	4·71	6·90	1·99	5·55	7·54	14·44	1·72	·58	·11	7·63	11·96	11·78	7·87	10·96
,,	Aug.,	135·69	·09	1·23	3·07	4·39	2·93	5·88	8·81	13·20	1·50	·92	·06	10·50	11·72	13·27	10·30	12·52
,,	Sept.,	129·93	·11	1·44	2·61	4·16	1·85	3·86	5.71	9·87	1·65	·84	·23	7·99	6·77	11·21	9·64	12·21
,,	Oct.,	107·71	·09	1·06	2·25	3·40	4·12	4·92	9·04	12·44	1·79	1·38	·17	5·40	7·74	7·08	6·26	20·28
,,	Nov.,	72·08	·15	1·12	2·64	3·91	3·06	4·72	7·78	11·69	1·44	1·07	·07	7·53	8·18	13·63	13·05	15·44
,,	Dec.,	75·71	·08	1·01	1·71	2·80	6·77	5·34	12·11	14·91	1·51	·61	·10	9·64	8·36	10·92	12·92	13·18
Monthly Mean of all gauges, -		80·62	·09	1·28	2·62	3·99	2·44	3·69	6·13	10·12	1·40	·69	·13	7·88	8·70	10·98	10·86	13·28
Mean daily deposit in Tons over the whole City, - -		—	·22	3·21	6·59	10·02	6·13	9·27	15·40	25·42	3·51	1·73	·32	19·79	21·85	27·58	27·28	33·38
Total yearly deposit in Tons over the whole City, -		—	82	1,172	2,404	3,658	2,237	3,383	5,620	9,278	1,283	632	119	7,224	7,979	10,067	9,958	12,183
Mean monthly deposit in Lbs. per Acre, - - - - -		—	·80	11·41	23·39	35·60	21·77	32·92	54·69	90·29	12·49	6·15	1·16	70·30	77·65	97·96	96·90	118·55

PART 3.

GENERAL SANITARY OPERATIONS.

CENTRAL DIVISION.

The housing question still dominates our field of operations. So long as we have areas with a housing density of 250 to the acre, giving accommodation to 1,116 persons per acre, compared with 24 houses to the acre (the present standard of the Board of Health), and 56 persons to the acre (the average for the whole City), our fight against insanitary conditions is a fight against tremendous odds. It reflects great credit on the Inspectors that even under existing conditions, by diligent and ever-wakeful observation, serious nuisances are prevented from arising. During the year 179,302 visits of inspection were made, and 14,808 nuisances discovered and dealt with.

Preventable Nuisances.—In my Report of last year attention was directed to a class of nuisances which might be described as "preventable nuisances," and the opinion was expressed that some progress might be made towards a better condition of affairs if some means could be adopted for educating the public.

During the year under review we made a tentative experiment in this direction. The throwing of refuse on the roofs of out-houses —a punishable offence under Section 36 of the Glasgow Police Amendment Act—we found to be a prolific source of complaint in certain localities, and a list of properties where this practice prevailed was compiled, and a copy of the following circular was addressed and delivered to each occupier :—

> "Complaints are frequently received regarding the throwing of refuse from windows of houses at above address on to the roofs of outhouses. These complaints are unfortunately well founded, and the Public Health Authorities are anxious to secure the co-operation of occupiers in putting an end to this objectionable practice.
>
> "All refuse not burned in the kitchen fire should be put into the ash-bin or otherwise handed over to the Cleansing Department for disposal. No refuse of any kind should be thrown from the windows.
>
> While the Public Health officials are seeking the co-operation of occupiers in this matter, it may be pointed out that defaulters may be prosecuted and fined under the provisions of the Glasgow Police Act, 1890."

Our Inspectors report the results to be very satisfactory, and further steps will be taken in the same direction in the future. The appeal made direct to the individual seems to be effective.

Common Lodging-Houses.—By Section 46 of the Glasgow Corporation Order Confirmation Act, 1923, the definition of common lodging-house is altered to include places charging up to 1s. per night instead of 6d. per night, as formerly. This will result in bringing within the scope of the regulations and bye-laws several places hitherto outside the category of common lodging houses. The keepers of such places will be invited to apply for registration in due course.

The keepers of common lodging-houses never sought to evade the requirements of the bye-laws, even when they were legally outwith the restricted definition. Lodgers flock to those houses where they are best catered for, and we find the keepers anxious at all times to follow any reasonable suggestions made for improvements. In several of the larger common lodging-houses in the Division notable improvements have been made towards improving the standard of accommodation provided, and in those houses there are seldom empty beds.

Farmed-Out Houses.—We have 471 farmed-out houses in the division. 1,929 visits of inspection were made by day, and 1,638 by night. On three occasions proceedings were taken in Court against the keeper for failure to supply the required furniture and furnishing. In one case a fine of £3 3s. was imposed.

Rats.—We have carried on a continuous campaign against vermin. Of properties registered in 1922 as being rat-infested all were again reported upon towards the end of the present year, and in the vast majority of cases improvement is reported. It has been found that in all properties when our advice had been followed regarding the the making of the premises rat-proof and removing all structural conditions favourable to harbouring rats, complete clearance is now reported. In other places partial clearance has been effected through trapping and keeping of dog or cat. Many occupiers report the cat as the most efficient hunter, the argument being that it can work in the dark—an advantage it possesses over the dog. The ordinary household cat is, however, of little use; it is too domesticated. Successful trapping is not common. The rat seems rapidly to become aware of the existence of the trap, and keeps clear. We are convinced that the only real cure is to prevent entrance and remove all harbourage.

WILLIAM ROY,
Divisional Sanitary Inspector.

5th June, 1924.

NORTHERN DIVISION.

The estimated population of the Division in 1923 was 268,013—an increase of 3,128 over the previous year. Of the nine wards included in the division, Provan shows the greatest increase, the Riddrie Housing Scheme, which is now complete, having provided accommodation for a large addition to the population of that ward.

General Nuisances.—The total number of nuisances recorded during the year was 16,609, as against 16,858 in 1922. For the most part these nuisances are discovered by the Inspectors in the course of visitation in their districts, but many become known as a result of complaints made by letter or by callers. That the services which the Department can render in this connection are appreciated by the public generally is evidenced by the fact that during the year 1,735 such complaints were lodged. An analysis of these shows that friction arising among tenants over the cleansing of common stairs water-closets, &c., is the most prolific source of complaint, and the arranging of the rotation of cleansing is a considerable part of the Inspectors' duties. Compared with former years, the almost total absence of complaints with regard to the overcrowding of dwelling houses is noticeable, and appears to show that it is now quite generally recognised that little or nothing can be done meantime to abate this particular form of nuisance.

Overcrowding.—*Ticketed Houses.*—The following statement regarding overcrowding in ticketed houses indicates that there was no diminution of this class of nuisance in 1923 as compared with the two years immediately preceding:—

RESULT OF NIGHT INSPECTIONS MADE DURING THE LAST QUARTER OF THE YEAR.

	1921	1922	1923
Percentage of the houses visited found overcrowded,	16	14	15·5
Average number of persons in excess of legal standard,	2·2	2·3	2·4

Compared with other localities, certain areas in Garngad show up badly in the matter of overcrowding, and in one tenement 20 of the 25 houses contain more than the legal number of occupants. The houses are all single apartments, and the number of persons in excess varies from two to four.

During the year, 17,118 night inspections of ticketed houses were made, and 15·4 per cent. of the houses visited were found to be overcrowded. The corresponding figures for the years 1921 and 1922 were 15·0 and 15·5 respectively. It is to be observed, however, that there has always been more or less overcrowding in these small dwelling-houses, and in pre-war years, when houses were plentiful, about 9 per cent. of them were in an overcrowded condition. The increase—*i.e*, about 6 per cent.—might, therefore, be taken as representing the extent to which house scarcity is responsible for the large number of overcrowded ticketed houses.

The work of the Night Inspectors is at present largely non-effective so far as the suppression of overcrowding is concerned, and its utility meantime is limited almost entirely to the prevention of any increase of the evil which might be caused by the keeping of lodgers.

Non-Ticketed Houses.—The following particulars regarding six of the most grossly overcrowded houses discovered may be taken as illustrating generally the unwholesome conditions under which many families are living at present. The houses specified are all of the non-ticketed class, and in each case the occupants are members of one family:—

Size of House	Monthly Rent (including Rates)	Number of Inmates	Ages of Children	
			Males	Females
1 Apartment,	£1 1 8	12	15, 11, 5	20, 18, 13, 9, 8, 7, 1
1 Apartment,	0 17 0	11	22, 15, 3	17, 13, 11, 8, 5, 1
1 Apartment,	0 18 4	10	22, 12, 9	19, 16, 14, 6, 3
2 Apartments,	1 8 0	15	24, 21, 19, 11, 7, 2	21, 17, 15, 13, 9, 7, 5
2 Apartments,	1 3 0	14	18, 13, 12, 8	19, 16, 10, 9, 5, 4, 3, 1
2 Apartments,	1 11 5	13	19, 18, 15, 14, 4, 2	20, 16, 12, 9, 7

The impossibility of proper sex separation under conditions such as these is one of the most serious features of overcrowding. There is meantime no legal standard by which sex separation can be regulated, but this aspect of the occupancy of small dwelling-houses, and particularly of all single and many two-apartment houses, calls for serious consideration.

While it would be difficult to estimate the actual number of overcrowded houses in the Division, there is no doubt that the evil is extensive, and will exist until the present house famine has been relieved.

Rent Restriction Acts, 1920-1923.—134 applications for certificates were made by tenants, and of these 86 were granted and 48 refused. In those cases in which certificates were granted on the ground that the houses were not in a reasonable state of repair, notices in terms of Section 25 of the Housing Act of 1919 were issued to the owners, and the necessary repairs were subsequently carried out. The maximum number of applications made in any month was 49, and these were received in August. Thereafter, the number gradually decreased, till in December only 6 were received.

Four reports as to the condition of houses regarding which certificates had previously been granted were issued in terms of Section 5 (2) of the Act of 1923, on request being made by owners, the specified defects having been remedied.

Common Lodging-Houses and Farmed-Out Houses. — Regular inspections of these were made, and the sanitary conditions were on the whole found to be satisfactory. The total number of farmed-out houses on the register is 149. Of that number, 115 are included in the Cowcaddens and Parliamentary Road Slum Clearance Schemes, and are, therefore, marked out for demolition.

Licensing Courts.—Special reports were submitted to the Magistrates in connection with applications for the renewal of licences by 27 piggery keepers and 22 brokers, and suggested improvements were in several cases carried out by applicants. The practice of considering reports by this Department as to the sanitary condition of premises regarding which applications for licences are being made might be usefully extended to include other licensed premises, such as places of entertainment, &c.

Cisterns for Dietetic Water Supply.—584 notices were issued with regard to cisterns which, on inspection, were found to be in a dirty condition. The number of houses supplied from cisterns placed in attics is increasing, and additions to the total have been made by recent housing schemes. The desirability of obtaining more comprehensive powers for the purpose of enforcing the yearly cleansing of storage cisterns was referred to in the report for the year 1921.

Verminous Children, &c.—As in former years, much of the time of the female Inspectors was devoted to the examination of school children suspected by the teachers of being verminous or dirty. For this purpose, 457 visits to schools were made, and 6,571 children examined. Of that number, 346 were found to be infested with vermin, 3,829 were slightly verminous, and 373 were dirty but not verminous. The homes of the affected children were inspected, and in 235 instances the house or the bedding therein found in a dirty condition. Advice and warnings given to the parents or guardians of the children are usually sufficient to bring about an improvement. Some difficulty was, however, experienced in dealing with a family of four children, who over a considerable period were more or less regularly found in a dirty and verminous state, and the children had ultimately to be cleaned at the reception-house. Some improvement has since been maintained, but the parents are of the shiftless type that requires constant supervision.

House-to-House Visitation. — House-to-house visitation was regularly carried out in those localities where, for various reasons, the standard of domestic sanitation is low. Perhaps the most difficult "dirty house" case with which we have to deal is where the house is found in a filthy condition and the only occupant is an old man or woman, physically unable to attend to the cleansing of the house or to personal cleanliness. Such cases crop up from time to time, and one which has given considerable trouble may be referred to as illustrating the difficulties that are sometimes met with. In this case an old woman (an Old Age Pensioner) was found, in a single-apartment house, in a dirty and verminous state. After some persuasion she was prevailed on to go to Stobhill, but she stayed there for only two or three weeks, and was soon afterwards found in the same miserable condition as before. Three times within nine or ten months she was in and out of the Parish Hospital, where on each occasion she stayed just long enough to get thoroughly cleaned and restored. While one sympathises with the independent spirit of old people who, in spite of the handicap of poverty and physical debility, seek to keep together homes of their own, there is no doubt that in certain cases it would be in their best interests if they were detained in institutions, where they would be properly looked after and kept clean.

A dirty house of a different kind was discovered in a locality where dirty houses are not expected. Here a self-contained house, which had been in continuous occupation for many years, was recently vacated, and the attention of the Inspector for the district was drawn to its condition by tradesmen who were putting it in order for an incoming tenant. All the apartments of the house were in an extremely dirty state, but the kitchen was worst of all, and the wall shelving there was covered with sheets of dirty newspaper, which proved, on examination, to be from a local newspaper of the year 1875—a tribute alike to the conservatism of the householder and the durability of the newspaper.

Details regarding other branches of the work carried out during the year are contained in Appendix Table XXIII.

J. H. PATTERSON,
Divisional Sanitary Inspector.

28th March, 1924.

EASTERN DIVISION.

General Nuisances.—16,340 nuisances were dealt with during the year, being 724 more than in the previous year. They present the usual diversity of character.

9,419 intimations were issued under Section 19 of the Public Health (Scotland) Act, 1897, and in 1,090 cases, where no attention had been paid to the intimations, notices were served under Section 20 of that Act. In no case was it found necessary to take legal proceedings, the work being carried out before the expiry of the time allowed by the notices. The remaining number of nuisances were dealt with under Local Acts. The number, nature, and distribution in the respective wards of the nuisances are shown in Appendix No. XXIII.

Dirty Closes and Stairs.—1,728 rotation cards were issued during the year, and 3,199 verbal warnings given in connection with the bye-laws for washing of common closes, stairs, lobbies, and water-closets. In most cases this had the desired effect, but in 27 instances it was found necessary to bring the recalcitrants into court, where they were convicted, and fines to the amount of £4 0s. 6d. imposed.

Limewashing of Walls of Closes and Staircases.—All the closes and staircases in the division were inspected during the year, with the result that 1,365 properties were reported to the Corporation under provision of Section 252 of the Glasgow Police Act, 1866, for authority to issue notices requiring the owners to have the walls of closes and staircases cleansed and limewashed. Notices were duly sent out, and the work completed in every case.

Piggeries.—There has been no change in the number of piggeries in the Division since last year.

As a precaution against spreading foot-and-mouth disease, which was prevalent in the district, no inspections were carried out for a considerable time.

Cemeteries.—The regular inspection of the three cemeteries in the division were carried out as usual. 31 inspections were made, but no irregularities were discovered.

During the year, the directors of Janefield Cemetery made application to the Corporation for sanction to extend their burying-ground by the purchase of a rectangular piece of ground, containing about 5,000 square yards, at the south-west corner of the cemetery. The whole matter was duly reported on, but, although no objection was taken to the proposed extension, I am informed that the sale has not been carried through.

Farmed-Out Houses.—The number of farmed-out houses in the Division is 186.

Little or no overcrowding was discovered, and in no instance were two families found in any of the "telescoped" houses. This is rather remarkable, considering the overcrowding in houses of similar size and type all over the Division. The reason for this may be attributed to the present scarcity of houses, which affords an opportunity to the house farmer of selecting his tenants. He does not encourage tenants with large families, for if he did he would be compelled to provide more furnishings, fittings, &c., as prescribed in the bye-laws. There is also less wear and tear with a small family, and the rental received is the same irrespective of the size of the family.

Water supply and sink accommodation were introduced into thirteen houses during the year, to bring them into conformity with the bye-laws. All farmed-out houses in the Division have now water-supply and sink accommodation inside the houses.

1,358 inspections were made during the day, and 1,023 during the night.

Numerous complaints are received of the exorbitant rents charged by the "house farmer." The Local Authority has, however, no power to interfere, and I think that at the present time it would be undesirable for them to do so. It is really a question of supply and demand, and when houses become more plentiful prices will adjust themselves.

Common Lodging-Houses.—There are 11 common lodging-houses in the division—6 for males and 5 for females, with accommodation for 2,304 males and 503 females respectively. These figures are the same as last year's.

A reasonable standard of cleanliness is maintained in all the houses, and they are all well conducted.

608 inspections were made during the day, and 63 during the night.

No young persons (male or female) under 18 years of age were found in any of the houses unaccompanied by their parents, contrary to the bye-laws; and in only one house for females were young persons found so accompanied—their ages being 5, 7, 9, 12 and 13 years.

Factory and Workshop Act, 1901.—3,674 inspections of factories and work-places were made. 75 workshops were measured and registered, and 59 removed from the register leaving a total of 1,311 factories and workshops in the division. 91 complaints were dealt with during the year.

The usual lists of outworkers were received, and 208 visits were made to the houses of the workers during the year. In each case the conditions were found to be satisfactory.

Bakehouses.—637 inspections of bakehouses were made. In 9 instances the walls and ceilings were found dirty or limewashing was overdue. Intimations were served on the persons responsible, and the work carried out satisfactorily. Proceedings in court were instituted against one owner for failing to repair a bakehouse floor.

Female Visitations.—Systematic house-to-house visitation continues to be made in the poorer localities for the purpose of enforcing personal and household cleanliness. The schools are also regularly visited, the aim being to effect an improvement in the dirty and verminous children who are turned out for inspection in the various classes. Details of the work carried out by the female Inspectors will be found in Appendix No. XXIII.

Drainage.—During the year the drainage and sanitary fittings of 200 houses in the Tollcross and Sandyhills Housing Scheme were smoke-tested and found tight. These houses are now all occupied.

A considerable number of smoke tests have also been carried out at the houses in course of erection at Newbank and Belvidere. These houses are intended for tenants displaced in connection with the slum clearance scheme in the Mile-End Ward.

Rag Flock Act.—33 samples of rag flock were procured during the year for analysis, all of which were found to conform to the standard. There has been no action taken as yet to amend the Rag Flock Act, a step which, in my opinion, is long overdue.

Dungpit Spraying.—During the five summer months the disinfecting of all dungpits was carried out, the total number of pits sprayed being 5,819.

I have much pleasure in acknowledging the loyal co-operation of stable owners in assisting the Department in carrying out this work.

Overcrowding.—With reference to the ever-present evil of overcrowding, matters are growing steadily worse every year, and unless the building of houses is greatly expedited there is little hope in the near future of ameliorating the deplorable conditions under which a great many respectable citizens are meantime forced to live.

A special survey was made quite recently of 20 ticketed and 20 unticketed houses of one and two apartments in the division, with a view to ascertaining to what extent they were overcrowded. It was found that the former were overcrowded by 100 per cent., and the latter by 111 per cent.

The Corporation are at present building houses at Newbank and Belvidere, all the houses being specially earmarked for the displaced tenants from the properties included in the slum clearance scheme in the Mile-End Ward.

While this is worthy of every commendation, I would point out that no effort has, as yet, been made to provide houses for tenants who, through no fault of their own, are compelled to live for an indefinite time in grossly overcrowded houses, with all their attendant evils.

The conditions obtaining in these houses are not only a menace to health, but the whole standard of morality of the inmates is endangered.

It is no uncommon occurrence for an expectant mother who, with her husband and other members of the family, may be occupying a single-apartment house, to come to this office and implore the Department to get her a larger house. Others come making the same request because some member of the family is in delicate health. But there are no houses available either for them or for the many others in the same plight.

I would suggest that the Corporation provide houses of suitable size and requirements for families such as have been indicated, and also for the relief of the more aggravated cases of overcrowding. The families could be carefully selected, and priority given to the most deserving cases.

JOHN DONALDSON,
Divisional Sanitary Inspector.

1st May, 1924.

SOUTH-EASTERN DIVISION.

Housing.—A systematic survey of the housing conditions is being carried out, with a view to further clearance schemes, and 4,069 inspections of houses were made during the year.

463 houses, in which minor defects were found, were dealt with under the Housing and Public Health Acts.

Activity in house building by private enterprise has increased. 54 new houses having been occupied during the year, as against 29 last year; while the Corporation have in course of erection in this division four new housing schemes—viz., Polmadie, Victoria Road, Cathcart Road, and Pollokshaws.

Rent and Mortgage Interest (*Restrictions*) *Acts*, 1920 *and* 1923.—The coming into force of the new Rent Acts revived considerably the interest of tenants in their rights and privileges, with the result that throughout the year 48 applications for certificates that houses were not in all respects reasonably fit for human habitation, or were not in a reasonable state of repair, were received—a decided increase on the previous year, when only 3 such applications were made. 33 of the applications were granted and 12 refused, while in 3 cases the applicants had removed before the certificates could be issued.

An application was also received from an owner for a report, in terms of the Rent Acts, that he had repaired the defects specified in a certificate previously issued to a tenant. The repairs having been found to be satisfactorily carried out, the report was issued.

Nuisances.—A complaint from Eastwood Parish Council regarding offensive smells being experienced in the vicinity of Auldhouse Avenue was investigated. The cause of this complaint was somewhat difficult to trace, as immediately it was received no further smells were experienced. A piggery at Auldhouse Avenue was alleged to be the source, but it was discovered that the annoyance had been caused by the manuring of a field adjoining, from a farm outwith the City boundary, where there is a large piggery.

A collection of surface water on a piece of vacant feuing ground was also the cause of much complaint. It is very difficult to deal with complaints of this nature, as such collections of water usually soak away before they become stagnant or a nuisance. Nevertheless, owing to frequent rains, pieces of ground so affected are often like miniature lakes, and are, in consequence, very attractive to children, resulting in many wettings and subsequent illnesses. The Master of Works was communicated with in the case under review, but was also without power to take action. It is suggested that some legal machinery might be devised, making it compulsory to have such grounds levelled up or adequately drained.

The pollution of a burn or open water-course by the drainage from a large mansion-house was also dealt with, a new drain from the public sewer being laid, while a privy with a drop directly into the River Cart was removed at the instigation of the Department and a new water-closet, with drainage to sewer, substituted.

An application for permission to carry out the burial of human remains in the grounds of a private institution was refused.

9,122 intimations of nuisances were served under the Public Health Act, and very little difficulty was experienced in having these attended to. In two cases, however, proceedings had to be instituted in the Sheriff Court. In both instances the owners, on being summoned had the nuisances removed, and the cases were accordingly withdrawn, the owners paying the legal expenses incurred.

Cleansing of Closes, Stairs, &c.—Throughout the year a special inspection was made of every common close and staircase in the Division, when it was found that at 1,600 properties limewashing was required. The owners, on being notified, had the necessary work carried out.

1,031 " rotation " cards regarding the washing and sweeping of closes, stairs, &c., were served upon tenants. Frequent subsequent visits were paid to the properties where these cards were issued, to ascertain if they were being attended to. In only three cases, where the tenants persisted in neglecting to cleanse the closes or stairs, were legal proceedings resorted to—one tenant being admonished, while the other two were fined 10s. 6d. and 5s. respectively.

Many complaints are received with reference to nuisances on stairs caused by dogs and cats kept by occupiers of tenement houses. This is a police offence, and all such complaints are accordingly forwarded to the Chief Constable for attention. It is however, exceedingly difficult to detect the culprits, and it is therefore satisfactory to be able to report that the police have been successful in obtaining a conviction against a dog owner, a fine of 5s. being imposed. It is hoped that this will be taken as a warning by all dog and cat owners.

Domestic and Personal Cleanliness.—The habitually neglectful housewife continues to monopolise a great portion of the time and energies of the female Inspectors, by whose watchfulness and frequent visits only can a reasonable state of cleanliness be maintained. In one such case—a woman living alone, and going out all day "charring"—the female Inspectors could not gain admission to the house for a considerable time, and when ultimately this was accomplished it was found that the woman had been carrying in a very miscellaneous collection of articles, apparently received from the people for whom she worked, and which she had allowed to accumulate. Upon examination these were found to consist of various foodstuffs (which had gone bad), coals, firewood, old clothes, and general rubbish. Notices to cleanse the house having been served upon the woman without effect, proceedings were instituted against her in the Police Court, and a fine of 10s. 6d. was imposed. As she, nevertheless, still failed to have the cleansing operations carried out, the powers obtaining under Section 9 of the Glasgow (Police) Order Confirmation Act, 1904, were put into force, and a cart-load of refuse was removed from the house.

An Act the provisions of which are seldom taken advantage of is the Cleansing of Persons Act, 1897. It is therefore of interest to record that an application for the use of facilities for personal cleansing was made by a young woman who had become verminous. She was granted such facilities at the Reception House, her body clothing being sent to the disinfecting station for treatment.

Factory and Workshop Act, 1901.—Generally speaking, the sanitary condition of workshops—of which there are 632 on the register, and to which 2,055 visits of inspection were paid—was satisfactory. Only 47 intimations regarding want of cleanliness, and 34 with reference to other nuisances, required to be issued, and these were all attended to.

In addition, periodic inspections were made of all bakehouses, in 44 of which it was found necessary to direct attention to lack of cleanliness. There are 83 bakehouses, of which 38 are factories.

There are now 119 outworkers on the register, to whose premises 282 visits were paid. These were found clean and free from infectious disease.

Farmed-Out Houses.—The keeper of 36 of these houses having relinquished his tenancy, and the owner having let them directly to separate tenants as ordinary monthly lets, the houses have been removed from the register, on which there are now only 134 houses.

Court proceedings were instituted against both the owner and the keeper of a number of farmed-out houses who failed, after repeated reminders, to make application for the annual re-registration. Ultimately the application was lodged, and the cases were withdrawn.

Tents and Vans.—There was a large increase in the number of travelling shows visiting the Division during the year—183 vans, as against 22 last year. These were kept under sanitary supervision during their stay.

Only items of general interest have been referred to in this report, but details of all the work will be found in the Appendix tables.

DUNCAN THOMSON,
Divisional Sanitary Inspector.

31st March, 1924.

SOUTH-WESTERN DIVISION.

House Drainage.—1,402 houses, completed under Corporation Housing Schemes, as compared with 1,058 in the preceding year, had the drainage and sanitary fittings in connection therewith tested immediately prior to occupancy.

The only other new houses tested prior to occupancy were 1 wooden (temporary) house in Ward 31, and 3 villas in Ward 32.

Where there is reason to believe that drains are defective the smoke test is applied. It is now the exception to come across a tenement to the drains of which the smoke test has not been applied at one time or another. House drainage, on the whole, is good.

At Craigton, Drumoyne, Greenhead, and Mosspark Housing Schemes the drains are tested before they are covered over, and the drains and sanitary fittings are tested on completion before the houses are occupied.

The elimination of subsidiary or disconnecting traps in the drainage systems of the houses in the housing schemes is accepted as a principle the observance of which may be said to be to the good, yet in practice conditions and circumstances are met with where modification is expedient, and where a hard-and-fast adherence to this principle may impair efficiency.

Nuisances.—143,604 inspections were made in connection with the discovery and removal of nuisances, of which 16,669 were recorded. The nuisances are detailed in the Appendix. In 3 instances legal proceedings were successfully instituted in the Sheriff Court. In one case, that of a polluted burn, the nuisance was admitted, but the onus of removing it was disputed. On the production of titles, the Court apportioned responsibility.

Schools.—At 4 schools the sanitary conveniences were modernised and the drainage systems reconstructed.

Factories.—The drains were reconstructed and modern sanitary conveniences installed in several factories.

Factory Bakehouses.—Factory bakehouses on the register number 31, as compared with 30 last year; 1 small factory bakehouse was vacated, and 2 workshop bakehouses, on having electric plant installed, were added to the list. 6 are underground.

A high standard of cleanliness is maintained, particularly in the majority of the larger factories, but in the course of inspection, in addition to the need for calling upon occupiers to limewash the walls and ceilings twice a year, as required by the Factory Act, intimations were sent regarding defects or nuisances discovered on the premises, in connection with the removal of which the following improvements were effected :—

Walls and ceilings whitewashed, ...	18
Benches, tables, drawers, &c., washed, ...	4
Floors scraped or otherwise cleansed, ...	8
Oven tops or fronts cleansed, ...	2
Mess-room or dressing-room floors, walls, or ceilings cleansed, ...	4
Accumulations of flour, dust, or rubbish removed, ...	3
Ceilings, walls, or floors repaired, ...	10
Water-closets, urinals, or sinks repaired or cleansed,	8
Water-closet removed from bakehouse, ...	1

Towards the end of the year the owner of a large factory bakehouse raised the question as to whether his whole premises were one factory bakehouse within the meaning of the Factory and Workshop Act, 1901, or whether they may be held to consist of two sets of premises, one, in which baking or any process incidental thereto, is carried on, being subject to limewashing once in six months; the other, in which processes other than baking are carried on, to be limewashed once in fourteen months, the prescribed period for the limewashing of factories which are not bakehouses. No application appears to have been made to the Factory Inspector by the occupier. prior to the transference of powers to the Local Authority, to have each of these parts of the premises declared a separate factory. The question raises the point as to whether it is competent to exclude any portion of a bakery from the provisions with respect to half-yearly limewashing, and a ruling is being looked forward to with interest.

Retail Bakehouses.—Exclusive of milk-dealers' shops in which baking is done, the number of retail bakehouses on the register is 32; one is underground.

Following on formal intimation given to the occupier of a retail bakehouse deficient in light and ventilation, and without a convenient water supply the premises were vacated.

The occupier of a retail bakehouse, reported for prosecution for using premises from their construction and situation totally unsuited for use as a bakehouse, and which were kept in a filthy condition by the baker, whose person was in keeping with his surroundings absconded before a diet had been fixed in the Sheriff Court.

Although the establishment of a basement as a bakehouse is struck at by the Factory Act, the use of such underground cellars appears to be not without attraction for some traders.

A toy dealer sold off his stock and converted his shop, under which there is a cellar or basement, into a retail bakehouse. The baking business had scarcely been set a-going when suspicion was aroused as to the use to which the basement was being put, with the result that, after having been warned of the consequences likely to ensue if use were made of the underground premises as a bakehouse, the new venture was abandoned by the occupier, who now carries on a tailoring business in the shop.

A shopkeeper, about to commence business, who was informed that the basement underneath his shop could not be used as a bakehouse, ignored the warning, and was proceeded against in the Sheriff Court and fined in £2.

As a rule the retail bakehouses are kept clean, but in 4 instances intimation was sent regarding overdue limewashing.

Workshops.—The workshops, of which there are 621 on the register, are regularly visited, and, generally, are well kept. 23 intimations were given to occupiers to have the walls and ceilings of their premises cleansed. Other improvements effected include:—Light and ventilation of workshops improved, 4; ventilation of water-closets improved, 2; damp walls, leaking roofs, or broken floors repaired, 6; water-closets cleansed or repaired, 9; and floors scrubbed, 3.

Home-Work. — The outworkers on the register number 64, as compared with 51 last year. The work is done in houses ranging from one to nine apartments. No complaint was recorded in connection with the houses of outworkers.

Common Lodging-Houses.—By the Glasgow Corporation Order Confirmation Act, 1923, the definition of the expression "common lodging-house" in the Public Health Act has been altered so as to include lodging-houses in which lodgers are housed at an amount not exceeding one shilling a night.

The nightly charges in the four common or "model" lodging-houses are 7d., 8d., 9d., 10d., and 1s., so that all come within the amended definition.

In the common lodging-houses and the seamen's boarding house a high standard of cleanliness is maintained.

Farmed-Out Houses.—There is no change in the number of farmed-out houses, of which there are 12 on the register. They are situated in a tenement in Kingston Ward. The weekly charges are from 10s. to 12s. for a furnished single apartment, and 14s. for a furnished room-and-kitchen house. The bye-laws are strictly enforced.

Ticketed Houses.—The ticketed houses are regularly visited by the Night Inspectors. Substantially there is no change in the condition of these. 7,513 night visits were paid to the 1,612 ticketed houses in the Division. On 876 occasions overcrowding was discovered, as compared with 826 last year.

Two householders were prosecuted in the Police Court and fined £1 each. One was a case where lodgers were housed in greater number than the size of the house warranted, and where the occupier had been previously convicted of overcrowding. The second case was one where a house was grossly overcrowded by members of one family. The house is one of one apartment, containing 1,000 cubic feet, and at the beginning of the year the inmates were the householder and his wife and their five sons, aged 1, 9, 12, 15, and 23 years respectively, and four daughters, aged 4, 14, 16, and 18 years respectively—a total of 11, of whom three were under 10 years of age. The house was therefore overcrowded to the extent of 7 adults. The family came from Pollokshaws, where they had occupied a two-apartment house, from which they had been ejected for non-payment of rent. The inclusive rent of that house was 25s. 9d. a month, while that of the house under review is 9s. a month. The householder's wife states that when she came to this house five of the children were in the poorhouse. At the end of the year the overcrowding had been lessened through two members of the family having gone to lodgings, and a further reduction is anticipated, as arrangements are being made for the marriage of one of the daughters.

In 8 single-apartment ticketed houses, with cubic capacities ranging from 1,100 to 1,600 cubic feet, overcrowding exists to the extent of from two adults and one child to four adults and one child in excess of the legal number, and in the case of a two-apartment house of 1,600 cubic feet, four adults in excess are housed.

Overcrowding in Houses other than Ticketed Houses.—Little has been done during the year to ease the housing shortage, and overcrowding and its attendant evils are becoming daily more pronounced. An attempt is made to repress—or rather control—overcrowding in ticketed houses, but gross overcrowding occurs in houses higher in the social scale than the ticketing line, and where ticketing would afford no remedy.

The following is a table showing a number of houses of a class better than the ticketed house, where the number of inmates exceeds the average.

For the purpose of this table each adult or child is reckoned as one inmate :—

Number of Inmates in each House	Number and Size of Houses, the number of Inmates occupying each of which corresponds to the figure shown opposite in column 1.			Remarks
	1-Apt.	2-Apts.	3-Apts.	
6	2	—	—	An average single-apartment house may be held to contain air-space for four inmates, say a man and wife and two children ; and a two-apartment house, seven inmates, say a man and wife and five children.
7	5	—	—	
8	11	—	—	
9	3	—	—	
10	2	3	—	
11	—	9	—	
12	—	2	1*	* Contains 3,200 cubic feet.
14	—	1	—	
Total.	23	15	1	

There is tuberculosis in 8 of the above families.

The overcrowding ranges from one adult to five adults and one child on the basis of 400 cubic feet of air space for each person over 10 years and 200 for a person under 10 years.

Back Courts and Ashbins.—Back courts behind or attached to tenement property are swept daily, and some are hosed out at frequent intervals.

The lack of regard to cleanliness in some localities is reflected in the condition of the back courts, many of which are littered with refuse thrown from dwelling-house windows. This is aggravated by the carelessness shown with regard to the depositing of household refuse in the ashbins. The ashbin system, admirably adapted to the requirements of ordinary tenement property, leaves much to be desired in congested areas where a tenement may have a very small back court or none at all, or where the ashbins for two or more tenements are placed in one shelter in the corner of a narrow court and close to dwelling-house windows.

Rag Flock Act.—10 samples of rag flock submitted to the Public Analyst were found conform to the standard, and 1 contained 58 parts of chlorine per 100,000 of rag flock. The seller of the latter pleaded the warranty defence. The Sheriff held the warranty produced did not appear to be retrospective, and that retrospection could not be assumed; accordingly the guarantee did not justify either the accused or the Local Authority in holding the wholesaler liable for the offence in terms of Section 1 (3) of the Act, and he found the accused guilty, and imposed a modified fine of £2.

Tents and Vans.—These are regularly inspected. For the most part they belong to showmen, whose vans are generally neat and tidy, but one or two of the vans are used by people who appear to be unable to get other places of abode.

Spraying of Stable Manure Pits.—This work was continued during the summer and autumn months, and was the means of abating the fly nuisance to a considerable degree.

Piggeries.—The piggeries, of which there are 7, are removed from dwelling-houses a much greater distance than the minimum specified in the bye-laws. They are well kept.

Cemeteries.—A complaint was lodged that at one of the cemeteries the bye-laws were being evaded. Strict investigation showed that there was no ground for complaint.

Cleansing of Houses and Clothing.—Regular house-to-house visitation is carried out in selected areas, principally by the lady Inspectors. 5,158 houses were visited, and 140 notices were served upon occupiers whose house or bedding was in a dirty condition. The notices were complied with without having recourse to court proceedings.

Inspection of Children in Schools.—352 visits were made to schools, and 7,807 school children were submitted by the teachers for inspection by the lady Inspectors. 661 school children were found verminous, and 72 dirty, and 783 notices were served upon and attended to by the defaulting parents or guardians. The lady Inspectors report that "many of the children come from homes "where constant supervision is necessary in order to keep the "mother at a reasonable standard of cleanliness," and that in other "cases "one or two visits usually suffice to effect a lasting "improvement."

Limewashing of Closes and Staircases.—Following on regular surveys, 1,790 notices under the Police Act of 1866 were issued on owners to limewash or cleanse closes and staircases. The notices were attended to.

Cleaning of Closes and Stairs.—Much attention is given to the enforcement of the bye-laws with respect to the sweeping and washing of closes and stairs, and although complaints of neglect by tenants to perform this duty are on the increase, this may be credited to a desire for the maintenance of a higher standard of cleanliness in the approaches to dwelling-houses. 23,881 inspections were paid, 1,737 notices (on each of which a tenant's weekly rotation for a year is written) were issued, and 15 tenants were proceeded against in the Police Courts and fined or admonished.

JAMES REID,
Divisional Sanitary Inspector.

14th March, 1924.

APPENDIX.

TABLE I.—GLASGOW, 1923.—ESTIMATED POPULATION IN EACH MUNICIPAL WARD, ACREAGE, AND PERSONS PER ACRE.

MUNICIPAL WARDS.	POPULATION.				Acreage.	Persons per acre (including Institutions and Shipping.)
	Without Institutions and Shipping.	Institutions.	Shipping.	Total.		
1. Shettleston and Tollcross, -	33,066	115	...	33,181	887	37
2. Parkhead, - -	36,322	1,388	...	37,710	883	43
3. Dalmarnock, -	42,051	38	...	42,089	288	146
4. Calton, - -	36,616	2,628		39,244	333	118
5. Mile end. - -	26,432	170	...	26,602	191	139
6. Whitevale, - -	24,759	348	...	25,107	176	143
7. Dennistoun. -	22,822	276	...	23,098	280	82
8. Provan, -	34,170	...	...	34,170	973	35
9. Cowlairs, - -	24,560	1,701	...	26,261	456	58
10. Springburn, -	17,559	1.785	...	19,344	760	25
11. Townhead, - -	28,781	1,415	...	30,196	175	173
12. Exchange, - -	17,171	2,451	...	19,622	289	68
13. Blythswood, -	14,494	2,400	75	16,969	242	70
14. Anderston, - -	29,054	1,016	1,851	31,921	422	76
15. Sandyford, - -	24,347	454	...	24.801	152	163
16. Park. - - -	22,413	224	...	22,637	272	83
17. Cowcaddens, -	42,290	819	9	43,118	488	88
18. Woodside, - -	37,244	858	...	38,102	170	224
19. Ruchill. -	24,733	1,089	2	25,824	767	34
20. North Kelvin, -	23,920	24	...	23,944	146	164
21. Maryhill, - -	25,047	2,007	...	27,054	915	30
22. Kelvinside, -	21,011	1,113	...	22,124	1,127	20
23. Partick (East), -	30,516	1,058	...	31,574	268	118
24. „ (West). -	27,248	81	152	27,481	357	77
25. Whiteinch, -	28,796	554	3	29,353	1,266	23
26. Hutchesontown.	41,257	8	...	41.265	378	109
27. Gorbals, - -	52.793	741	...	53,534	252	212
28. Kingston, - -	34,479	289	172	34,940	285	123
29. Kinning Park, -	37,375	482	491	38,348	379	101
30. Govan, - -	37,697	367	13	38,077	529	72
31. Fairfield, - -	31,335	1,944	14	33,293	1,205	28
32. Pollokshields, -	21.271	724	...	21.995	1.673	13
33. Camphill, - -	20,687	63	...	20,750	366	57
34. Pollokshaws, -	18,903	...	...	18,903	343	55
35. Govanhill, - -	31,555	146	...	31,701	290	109
36. Langside, - -	18,322	691	...	19,013	430	44
37. Cathcart, - -	15,642	...	...	15,642	770	20
CITY, - -	1.056,738	29,467	2,782	1,088,987	19,183	57

TABLE II.—Glasgow, 1923 —INHABITED and UNOCCUPIED HOUSE in each Municipal Ward.

Municipal Wards.	Inhabited Houses.				Empt Hous
	1922.	1923.	Decrease.	Increase.	
1. Shettleston and Tollcross, -	6,798	6,795	3	...	8
2. Parkhead, - - -	7,884	7,874	10	...	7
3. Dalmarnock, - - -	9,170	9,144	26	...	1
4. Calton, - - - -	8.390	8,381	9	...	9
5. Mile-end, - - -	5,826	5,800	26	...	15
6. Whitevale, - - -	5,547	5,549	...	2	4
7. Dennistoun. - - -	5,690	5,688	2	...	6
8. Provan, - - - -	6,944	7,492	...	548	10
9. Cowlairs, - - - -	5,635	5,632	3	...	2
10. Springburn, - - -	3,734	3,735	...	1	...
11. Townhead, - - -	6,510	6,502	8	...	1
12. Exchange, - - -	3,990	3,978	12	...	2
13. Blythswood, - -	3,055	3,043	12	...	6
14. Anderston, -	6,464	6,438	26	...	7
15. Sandyford, - -	5.312	5.319	...	7	8
16. Park, - - - -	5,186	5,177	9	...	21
17. Cowcaddens. - - -	9,525	9,498	27	...	17
18. Woodside, - - -	8,562	8,542	20	...	6
19. Ruchill, - - -	5,488	5,487	1	...	2
20. North Kelvin, - - -	5,748	5,735	13	...	12
21. Maryhill, - - - -	5,344	5,351	...	7	6
22. Kelvinside, - -	5,197	5.154	43	...	56
23. Partick (East), - - -	6,876	6,881	...	5	9
24. ,, (West), - -	6,489	6,487	2	...	11
25. Whiteinch, - - -	6,302	6,293	9	...	16
26. Hutchesontown, - -	9,360	9,352	8	...	1
27. Gorbals, - - - -	11,243	11,246	...	3	3
28. Kingston, - - - -	7,360	7,357	3	...	1
29. Kinning Park, - - -	8,290	8,273	17	...	14
30. Govan, - - -	7,749	7,741	8	...	6
31. Fairfield, - - - -	6,499	6,812	...	313	5
32. Pollokshields, - - -	4,260	5,161	...	901	12
33. Camphill, - - - -	5,477	5,465	12	...	21
34. Pollokshaws, - - -	4,457	4,463	...	6	8
35. Govanhill, - - -	7,418	7,415	3	...	2
36. Langside, - - - -	4,691	4,690	1	...	6
37. Cathcart, - - - -	3,755	3,782	...	27	4
City, - - -	236,225	237,732	...	1,507	325

TABLE III.—Glasgow.—Linings granted by Dean of Guild Court in Years from 1914 to 1923 in respect of Houses.

Year ending 31st August.	No. of Apartments.						Total.
	1.	2.	3.	4.	5.	6.	
1914, ...	15	108	116	25	46	63	373
1915, ...	63	156	120	32	35	48	454
1916, ...	1	...	2	...	12	1	16
1917, ...	...	...	...	...	...	...	...
1918, ...	...	64	28	...	...	...	92
1919, ...	...	...	144	78	...	...	222
1920, ...	...	12	1,239	414	214	57	1,936
1921, ...	...	...	1,176	981	240	34	2,431
1922, ...	...	...	65	99	39	31	234
1923, ...	...	680	286	205	104	46	1,321

TABLE IV.—ABSTRACT of Meteorological Observations taken at Springburn Public Park.

Months. 1923.	Temperature			Rainfall.	
	Highest Temperature in Shade.	Lowest Temperature in Shade.	Mean Temperature.	No. of Days it fell	Amount Collected, in inches.
January, ...	51	27	39·0	29	3·85
February, ...	52	27	39·5	27	3·85
March, ...	59	29	44·0	13	1·37
April, ...	57	28	42·5	18	3·57
May, ...	61	30	45·5	19	2·27
June, ...	73	37	55·0	12	1·14
July, ...	83	46	64·5	24	4·50
August, ...	74	40	57·0	25	6·01
September, ...	70	37	53·5	23	5·79
October, ...	57	32	44·5	28	5·28
November, ...	53	20	36·5	19	3·58
December, ...	49	20	34·5	23	3·43
1914, ...	78	23	48·6	221	36·25
1915, ...	75	17	46·9	192	30·94
1916, ...	79	28	47·7	234	44·22
1917, ...	74	20	46·7	194	36·67
1918, ...	78	10	47·5	237	41·36
1919, ...	75	12	46·2	186	30·93
1920, ...	75	26	48·1	230	43·88
1921, ...	82	22	48·5	249	43·23
1922, ...	79	31	46·8	228	32·87
1923, ...	83	20	46·4	260	44·64

The records for years previous to 1921 were taken at Glasgow Observatory.

TABLE V.—GLASGOW.—BIRTHS AND BIRTH-RATES *per Million* IN EACH WA EXCLUSIVE OF INSTITUTIONS AND HARBOUR, FOR THE YEAR 1923, A NUMBER AND PERCENTAGE OF ILLEGITIMATE BIRTHS.

MUNICIPAL WARDS.	Births. 1923.	Illegitimate Births		Birth-rate 1923.	Birth 19
		No.	°/o Total Births.		
1. Shettleston and Tollcross, ...	881	30	3·4	26,644	28,6
2. Parkhead, ...	963	42	4·4	26,513	28,6
3. Dalmarnock, ...	1,410	82	5·8	33,531	35,6
4. Calton, ...	1,206	102	8·5	32,936	33,5
5. Mile-end, ...	910	49	5·4	34,428	35,8
6. Whitevale, ...	692	36	5·2	27,949	29,5
7. Dennistoun, ...	344	12	3·5	15,073	16.4
8. Provan, ...	1,046	39	3·7	30,612	31,7
9. Cowlairs, ...	564	9	1·6	22,964	22,4
10. Springburn, ...	429	17	4·0	24,432	23,3
11. Townhead, ...	651	50	7·7	22,619	26,8
12. Exchange, ...	556	56	10·1	32,380	33,0
13. Blythswood, ...	371	31	8·4	25,597	27,1
14. Anderston, ...	821	48	5·8	28,258	30,8
15. Sandyford, ...	599	47	7·8	24,603	27,8
16. Park, ...	279	21	7·5	12,448	13.2
17. Cowcaddens, ...	1,420	120	8·5	33,578	34,1
18. Woodside, ...	982	59	6·0	26,367	29,3
19. Ruchill, ...	669	20	3·0	27,049	28,8
20. North Kelvin, ...	478	22	4·6	19,983	23,0
21. Maryhill, ...	624	22	3·5	24,913	27,1
22. Kelvinside, ...	210	10	4·8	9,995	11,6
23. Partick (East), ...	679	33	4·9	22,251	23,7
24. ,, (West), ...	594	22	3·7	21,800	22,9
25. Whiteinch, ...	567	22	3·9	19,690	20,1
26. Hutchesontown, ...	1,214	54	4·4	29,425	32,4
27. Gorbals, ...	1,567	119	7·6	29,682	32,1
28. Kingston, ...	1,038	65	6·3	30,105	33,5
29. Kinning Park, ...	1,033	68	6·6	27,639	31,6
30. Govan, ...	1,065	52	4·9	28,252	31,0
31. Fairfield, ...	763	28	3·7	24,350	24,6
32. Pollokshields, ...	325	5	1·5	15,279	12,54
33. Camphill, ...	292	12	4·1	14,115	13,30
34. Pollokshaws, ...	373	17	4·6	19,732	20,07
35. Govanhill, ...	580	17	2·9	18,381	19,73
36. Langside.	246	11	4·5	13,426	13,6
37. Cathcart, ...	184	10	5·4	11,795	15,35
Institutions, &c., ...	85	33	—	—	—
CITY, ...	26,710	1,492	5·6	24,527	26,47

BLE VI.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* IN EACH MUNICIPAL WARD, FOR THE YEAR 1923, AND RATES.

MUNICIPAL WARDS.	Deaths. 1923.	Death-rates.		
		1923.	1922.	1921.
Shettleston and Tollcross, ...	363	10,978	14,011	13,391
Parkhead, ...	401	11,040	14,747	14,183
Dalmarnock, ...	679	16,147	18,780	15,372
Calton, ...	625	17,069	18,854	17,650
Mile-end, ...	448	16,949	21,364	17,800
Whitevale, ...	341	13,773	16,504	15,649
Dennistoun, ...	227	9,947	11,658	10,532
Provan, ...	418	12,233	15,663	14,775
Cowlairs, ...	247	10,057	12,625	9,514
Springburn, ...	168	9,568	12,194	10,235
Townhead, ...	408	14,176	14,759	13,972
Exchange, ...	273	15,899	20,140	16,514
Blythswood, ...	223	15,386	19,825	17,973
Anderston, ...	454	15,626	16,875	16,975
Sandyford, ...	387	15,895	17,001	15,692
Park, ...	263	11,734	13,375	10,651
Cowcaddens, ...	635	15,015	18,540	17,870
Woodside, ...	527	14,150	16,164	15,286
Ruchill, ...	282	11,402	13,362	11,244
North Kelvin, ...	249	10,410	11,605	9,620
Maryhill, ...	254	10,141	13,761	12,696
Kelvinside, ...	227	10,804	10,921	8,841
Partick (East), ...	394	12,911	14,632	13,335
„ (West), ...	268	9,836	11,747	9,964
Whiteinch, ...	326	11,321	12,428	10,487
Hutchesontown, ...	540	13,089	16,448	15,098
Gorbals, ...	777	14,718	20,251	16,942
Kingston, ...	493	14,299	19,819	15,721
Kinning Park, ...	502	13,431	17,154	13,981
Govan, ...	486	12,892	18,717	15,086
Fairfield, ...	303	9,670	12,517	8,484
Pollokshields, ...	263	12,364	13,374	11,648
Camphill, ...	207	10,006	10,380	9,394
Pollokshaws, ...	178	9,416	11,974	12,512
Govanhill, ...	323	10,236	11,919	10,487
Langside, ...	181	9,879	9,993	10,968
Cathcart, ...	139	8,910	9,477	8,483
Institutions, &c., ...	605	—	—	—
CITY, ...	14,084	12,933	15,686	13,834
Inward Transfers, ...	14,875	13,659	16,498	14,535

TABLE VII.—Glasgow.—Number of Outward and Inward Transfer Death for the Years 1921-1923.

Cause of Death.	Outward Transfers.			Inward Transfers.		
	1921.	1922.	1923.	1921.	1922.	1923.
1. Enteric Fever, ...	...	...	1	...	...	...
2. Typhus Fever, ...	2	...	...	...	...	...
3. Smallpox, ...	...	...	...	8	...	...
4. Measles, ...	...	9	2	...	1	...
5. Scarlet Fever, ...	3	...	...	...	...	...
6. Whooping-cough, ...	3	2	3	...	2	1
7. Diphtheria and M. Croup, ...	2	6	3	...	...	...
8. Croup, ...	...	...	...	...	...	...
9. Influenza, ...	...	6	1	2	7	1
10. Erysipelas, ...	3	5	6	...	3	3
11. Septicæmia, ...	14	20	15	4	6	...
11A Other Septic Diseases, ...	12	12	7	3	...	...
12. Pulmonary Tuberculosis, ...	16	28	24	91	147	139
13. Tuberculous Meningitis, ...	13	15	15	2	8	8
14. Abdominal Tuberculosis, ...	13	20	20	10	13	20
15. Other Tuberculous Diseases,	14	17	18	19	33	20
16. Cancer (Malignant Disease),	156	198	196	34	38	35
17. Rheumatic Fever, ...	1	6	4	1	...	1
18. Alcoholism, ...	...	1	...	4	1	...
19. Cerebro-Spinal Fever, ...	1	4	2	1	...	...
20. Meningitis (not Tuberculous),	8	9	11	5	5	3
21. Cerebral Hæmorrhage (Apopl.)	19	27	26	39	51	43
22. Other Nervous Diseases, ...	47	56	50	177	189	171
23. Organic Heart Diseases, ...	50	42	42	62	71	72
24. Other Circulatory Diseases,	33	27	39	14	26	27
25. Bronchitis, ...	7	19	16	27	30	21
26. Pneumonia (all forms), ...	39	51	62	74	57	39
27. Other Respiratory Diseases,	18	13	16	7	5	10
28. Diarrhœa and Enteritis, ...	29	25	24	10	8	9
29. Appendicitis and Typhlitis,	87	57	79	4	3	5
30. Cirrhosis of the Liver, ...	5	4	6	3	1	...
31. Other Digestive Diseases, ...	165	133	131	10	20	28
32. Nephritis and Bright's Disease,	37	33	42	12	8	12
33. Puerperal Fever, ...	10	7	4	1	2	...
34. Other Accidents and Diseases of Pregnancy and Parturition,	30	32	25	2	...	...
35. Congenital Debility and Malformation, including Premature Birth, ...	61	47	43	8	2	3
36. Violence, ...	124	97	111	47	63	46
37. Unknown, ...	2	...	...	5	1	...
38. All other causes, ...	155	140	183	67	78	74
Totals, ...	1,179	1,168	1,227	753	879	791

BLE VIII.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* FROM DIFFERENT CAUSES, FOR THE YEAR 1923, AND RATES FOR SEVERAL PERIODS SINCE 1911.

CAUSE OF DEATH.	AVERAGE ANNUAL DEATH-RATE PER MILLION.					DEATHS.
	1911-15.	1916-20.	1921.	1922.	1923.	1923.
1. Enteric Fever, ...	57	23	16	11	13	14
2. Typhus Fever, ...	3	5	1	5	1	1
3. Smallpox, ...	...	20	7	—	—	—
4. Measles, ...	595	388	102	1,190	514	560
5. Scarlet Fever, ...	171	60	50	69	66	72
6. Whooping-cough.... ...	667	398	642	185	342	372
7. Diphtheria & Mem. Croup,	182	144	120	128	133	145
8. Croup, ...	16	3	5	6	7	8
9. Influenza,...	79	769	193	709	60	65
10. Erysipelas, ...	54	34	61	60	42	46
11. Septicæmia, ...	83	34	54	53	26	28
11A Other Septic Diseases, ...		24	47	37	39	42
12. Pulmonary Tuberculosis,...	1,348	1,190	1,007	1,074	1,014	1,105
13. Tuberculous Meningitis, ...	281	200	150	147	189	206
14. Abdominal Tuberculosis,	194	159	97	109	117	127
15. Other Tuberculous Diseases,	180	162	143	118	116	126
16. Cancer (Malignant Disease),	958	1,029	1,175	1,191	1,187	1,293
17. Rheumatic Fever, ...	57	45	41	54	51	55
18. Alcoholism, ...	*	24	25	11	6	7
19. Cerebro-Spinal Fever, ...	54	50	49	52	51	55
20. Meningitis (not Tuberculous), ...	204	156	129	118	96	104
21. Cerebral Hæmorrhage (Apoplexy), ...	771	763	740	785	766	834
22. Other Nervous Diseases,...	710	686	761	762	758	825
23. Organic Heart Diseases,...	1,774	1,197	1,178	1,178	1,235	1,346
24. Other Circulatory Diseases,		365	492	549	542	590
25. Bronchitis, ...	1,201	980	828	1,102	693	755
26. Pneumonia (all forms), ...	1,656	1,690	1,372	2,129	1,285	1,400
27. Other Respiratory Diseases,	301	242	188	257	192	209
28. Diarrhœa and Enteritis, ...	722	520	662	357	337	367
29. Appendicitis and Typhlitis,	626	89	100	93	91	99
30. Cirrhosis of the Liver, ...		35	39	29	34	37
31. Other Digestive Diseases,		448	433	418	425	463
32. Nephritis and Bright's Disease, ...	*	514	390	369	351	382
33. Puerperal Fever, ...	64	56	68	87	66	72
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	*	90	98	98	94	102
35. Congenital Debility and Malformation, including Premature Birth, ...	*	989	1,073	970	815	887
36. Violence, ...	620	569	531	511	469	511
37. Unknown, ...	*	23	22	14	9	10
38. All other Causes,... ...	3,496	1,460	1,445	1,463	1,427	1,555
Total, ...	17,124	15,633	14,534	16,498	13,659	14,875

* Included in "All Other Causes."

TABLE IX(A)—GLASGOW, 1923.—DEATHS FROM DIFFERENT DISEASES AMONG MALES AND AT SEVERAL AGE-PERIODS.

DISEASE.	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Total Males
1. Enteric Fever, ...	—	—	—	—	1	—	—	1	4	—	—	—	—	6
2. Typhus Fever, ...	—	—	—	—	—	—	—	—	—	1	—	—	—	1
3. Smallpox, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Measles, ...	78	136	74	8	—	2	—	—	—	—	—	—	—	298
5. Scarlet Fever, ...	1	8	14	8	2	1	1	2	—	—	—	—	—	37
6. Whooping-cough, ...	69	80	20	3	—	—	—	—	—	—	—	—	—	172
7. Diphtheria and Membranous Croup, ...	10	13	29	20	2	—	—	—	—	—	—	—	—	74
8. Croup, ...	—	3	1	1	—	—	—	—	—	—	—	—	—	5
9. Influenza, ...	5	1	—	1	—	1	—	1	2	7	9	9	1	37
10. Erysipelas, ...	4	—	—	—	—	—	—	—	1	6	4	4	1	20
11. Septicaemia, ...	—	—	—	1	—	1	1	—	2	2	1	2	2	12
11A. Other Septic Diseases, ...	3	1	—	1	1	—	—	1	2	8	4	3	1	25
12. Pulmonary Tuberculosis, ...	6	5	7	8	10	47	74	101	111	108	60	20	1	558
13. Tuberculous Meningitis, ...	29	26	26	12	9	2	2	—	—	3	—	—	—	109
14. Abdominal Tuberculosis, ...	8	6	17	8	4	4	—	3	1	1	—	—	—	52
15. Other Tuberculous Diseases, ...	4	4	3	5	3	4	8	6	7	2	4	2	—	52
16. Cancer (Malignant Disease), ...	1	—	—	—	—	1	3	6	28	115	193	179	38	564
17. Rheumatic Fever, ...	—	—	—	1	1	2	2	1	5	5	3	2	—	22
18. Alcoholism, ...	—	—	—	—	—	—	—	—	1	3	2	—	—	6
19. Cerebro-Spinal Fever, ...	8	4	7	4	1	3	3	2	2	2	—	—	—	36
20. Meningitis (not Tubercular), ...	18	10	12	1	2	1	—	1	1	3	1	—	—	50
21. Cerebral Hæmorrhage (Apoplexy),	1	—	—	—	—	3	—	3	10	28	89	128	88	350
22. Other Nervous Diseases, ...	76	16	9	6	5	10	9	9	16	48	44	81	28	357
23. Organic Heart Disease, ...	—	—	1	1	4	11	12	14	49	70	157	175	81	575
24. Other Circulatory Diseases, ...	—	2	—	2	3	3	2	11	17	62	82	109	51	344
25. Bronchitis, ...	55	20	7	1	—	2	—	7	21	35	64	90	60	362
26. Pneumonia (all forms), ...	195	122	58	19	7	9	18	42	58	84	89	64	23	788
27. Other Respiratory Diseases, ...	15	13	2	1	1	—	1	5	10	11	23	15	4	101
28. Diarrhœa and Enteritis, ...	135	29	11	1	2	1	2	3	7	6	10	6	3	216
29. Appendicitis and Typhlitis, ...	1	1	1	6	10	6	8	3	6	5	5	—	—	52
30. Cirrhosis of the Liver,	—	—	—	—	—	1	—	1	1	6	8	6	—	23
31. Other Digestive Diseases, ...	26	8	7	5	6	5	9	13	24	32	35	35	14	219
32. Nephritis & Bright's Disease, ...	2	—	1	3	—	2	4	12	25	49	41	51	9	19
33. Puerperal Fever, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35. Congenital Debility, Malformation, Premature Birth, ...	482	1	—	—	—	—	—	—	—	—	—	—	—	48
36. Violence, ...	16	22	14	22	8	12	15	36	47	33	48	31	10	314
37. Unknown, ...	4	—	—	—	—	—	—	1	—	—	—	—	—	5
38. All others, ...	91	18	10	8	6	5	11	18	35	60	107	144	177	69
All Causes, ...	1,343	549	331	157	88	139	185	303	493	795	1,083	1,156	592	7,21
Inward Transfer Deaths, ...	6	4	10	14	5	13	15	35	79	101	81	75	18	45
TOTAL, ...	1,349	553	341	171	93	152	200	338	572	896	1,164	1,231	610	7,67

TABLE IX(B)—GLASGOW, 1923.—DEATHS FROM DIFFERENT DISEASES AMONG FEMALE AND AT SEVERAL AGE-PERIODS.

DISEASE.	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Total Females	BOTH SEXES
Enteric Fever, ...	—	—	—	1	—	3	—	2	2	—	—	—	—	8	14
Typhus Fever, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Smallpox, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles, ...	68	133	50	9	2	—	—	—	—	—	—	—	—	262	560
Scarlet Fever, ...	1	6	13	12	3	—	—	—	—	—	—	—	—	35	72
Whooping-cough, ...	60	87	48	3	—	—	—	1	—	—	—	—	—	199	371
Diphtheria and Membranous Croup, ...	11	12	21	21	4	1	—	—	1	—	—	—	—	71	145
Croup, ...	2	—	1	—	—	—	—	—	—	—	—	—	—	3	8
Influenza, ...	—	1	—	1	—	1	—	4	—	3	7	9	1	27	64
Erysipelas, ...	6	—	1	—	—	—	3	—	3	3	4	2	1	23	43
Septicæmia, ...	1	1	—	—	2	3	2	2	2	1	1	1	—	16	28
Other Septic Diseases, ...	2	—	—	—	—	1	1	1	1	4	2	4	1	17	42
Pulmonary Tuberculosis, ...	6	3	4	11	22	54	59	95	74	54	17	8	1	408	966
Tuberculous Meningitis, ...	12	22	20	16	6	7	—	4	2	—	—	—	—	89	198
Abdominal Tuberculosis, ...	2	8	6	6	4	11	6	5	—	6	1	—	—	55	107
Other Tuberculous Diseases, ...	—	5	2	3	7	7	5	14	1	4	4	2	—	54	106
Cancer (Malignant Disease), ...	—	—	1	—	—	1	5	22	58	151	204	170	82	694	1,258
Rheumatic Fever, ...	—	—	—	4	3	7	2	2	6	7	1	—	—	32	54
Alcoholism, ...	—	—	—	—	—	—	—	—	1	—	—	—	—	1	7
Cerebro-Spinal Fever, ...	6	3	4	1	3	—	—	1	1	—	—	—	—	19	55
Meningitis (not Tubercular), ...	18	8	11	2	3	2	2	2	2	1	—	—	—	51	101
Cerebral Hæmorrhage (Apoplexy),	—	—	—	—	—	—	1	2	17	49	99	141	132	441	791
Other Nervous Diseases, ...	35	13	8	6	6	6	7	13	19	32	36	63	53	297	654
Organic Heart Disease, ...	—	—	—	4	9	9	3	29	48	89	170	207	131	699	1,274
Other Circulatory Diseases, ...	—	1	1	3	3	3	7	9	11	17	40	67	57	219	563
Bronchitis, ...	38	9	4	2	—	—	—	5	12	19	60	112	111	372	734
Pneumonia (all forms), ...	158	104	40	5	4	5	8	29	30	37	49	64	40	573	1,361
Other Respiratory Diseases, ...	18	10	6	1	—	—	1	3	4	6	15	11	23	98	199
Diarrhœa and Enteritis, ...	84	18	7	—	2	1	—	3	5	3	2	12	5	142	358
Appendicitis and Typhlitis, ...	—	—	1	3	4	6	1	9	4	4	3	4	3	42	94
Cirrhosis of the Liver, ...	—	—	—	—	—	1	1	—	4	1	4	2	1	14	37
Other Digestive Diseases, ...	22	3	10	4	2	4	6	8	18	28	46	33	32	216	435
Nephritis & Bright's Disease, ...	2	1	—	4	2	5	3	11	24	28	35	42	14	171	370
Puerperal Fever, ...	—	—	—	—	—	2	15	35	20	—	—	—	—	72	72
Other Accidents and Diseases of Pregnancy and Parturition, ...	—	—	—	—	—	2	13	53	33	1	—	—	—	102	102
Congenital Debility, Malformation, Premature Birth, ...	396	2	3	—	—	—	—	—	—	—	—	—	—	401	884
Violence, ...	18	4	12	15	2	2	4	10	8	17	19	19	21	151	465
Unknown, ...	3	—	—	—	—	—	—	—	1	—	1	—	—	5	10
All others, ...	63	17	7	4	8	3	8	17	31	68	106	144	315	791	1,481
All Causes, ...	1,032	471	281	141	101	147	163	391	443	633	926	1,117	1,024	6,870	14,084
Inward Transfer Deaths, ...	7	6	5	5	7	14	18	25	35	49	47	62	55	335	791
TOTAL, ...	1,039	477	286	146	108	161	181	416	478	682	973	1,179	1,079	7,205	14,875

TABLE X.—GLASGOW, 1923.—DEATHS OCCURRING IN INSTITUTIONS FOR THE TREATMENT OF THE SICK AND INFIRM, NURSING HOMES, &c.

DISEASE.	No.
1. Enteric Fever, ...	12
2. Typhus Fever, ...	1
3. Smallpox, ...	...
4. Measles, ...	294
5. Scarlet Fever, ...	72
6. Whooping-cough, ...	214
7. Diphtheria and Membranous Croup, ...	138
8. Croup, ...	7
9. Influenza, ...	4
10. Erysipelas, ...	34
11. Septicæmia, ...	21
11A Other Septic Diseases, ...	32
12. Pulmonary Tuberculosis, ...	490
13. Tuberculous Meningitis, ...	106
14. Abdominal Tuberculosis, ...	48
15. Other Tuberculous Diseases, ...	62
16. Cancer (Malignant Disease), ...	450
17. Rheumatic Fever, ...	14
18. Alcoholism, ...	1
19. Cerebro-Spinal Fever, ...	47
20. Meningitis (not Tubercular), ...	40
21. Cerebral Hæmorrhage (Apoplexy), ...	203
22. Other Nervous Diseases, ...	286
23. Organic Heart Disease, ...	369
24. Other Circulatory Diseases, ...	222
25. Bronchitis, ...	131
26. Pneumonia (all forms), ...	670
27. Other Respiratory Diseases, ...	56
28. Diarrhœa and Enteritis, ...	134
29. Appendicitis and Typhlitis, ...	85
30. Cirrhosis of the Liver, ...	20
31. Other Digestive Diseases, ...	235
32. Nephritis and Bright's Disease, ...	156
33. Puerperal Fever, ...	62
34. Other Accidents and Diseases of Pregnancy and Parturition,	66
35. Congenital Debility, Malformation, including Premature Birth, ...	213
36. Violence, ...	214
37. Unknown, ...	...
38. All others, ...	495
All Causes, ...	5,704

TABLE XI.—GLASGOW. 1923.—DEATHS IN INSTITUTIONS (INTRA MURAL) OF PERSONS BELONGING TO THE CITY BUT WITH NO HOME ADDRESS

DISEASE.	Poor Law Institutions.	Model Lodging-houses.	General Hospitals.	Infectious Diseases Hospitals.	Homes for Old Men, Women, and Orphans, &c., Asylums, Prisons.	Total.
1. Enteric Fever, ...	...	...	1	...	2	3
2. Typhus Fever, ...	...	1	...	...	...	1
3. Smallpox, ...	...	...	...	...		...
4. Measles, ...	1	...	...	1	...	2
5. Scarlet Fever, ...	2	...	...	1	...	3
6. Whooping-cough, ...	5	...	...	1	6	12
7. Diphtheria and Membranous Croup, ...	1	...	2	...	1	4
8. Croup, ...	...	...	...	...	...	...
9. Influenza, ...	1	...	...	...	2	3
10. Erysipelas	2	1	...	1	...	4
11. Septicæmia, ...	...	3	...	...	...	3
11A Other Septic Diseases, ...	...	6	...	...	...	6
12. Pulmonary Tuberculosis, ...	6	46	2	1	7	62
13. Tuberculous Meningitis, ...	...	...	...	...	1	1
14. Abdominal Tuberculosis, ...	...	...	...	...	...	...
15. Other Tuberculous Diseases, ...	1	2	...	...	...	3
16. Cancer (Malignant Disease), ...	4	24	6	1	11	46
17. Rheumatic Fever, ...	...	1	...	...	...	1
18. Alcoholism, ...	...	...	...	...	...	...
19. Cerebro-spinal Fever, ...	...	...	...	1	2	3
20. Meningitis (not Tubercular).	...	...	...	...	...	...
21. Cerebral Hæmorrhage (Apopl.)	3	19	1	...	13	36
22. Other Nervous Diseases, ...	6	16	1	...	7	30
23. Organic Heart Disease, ...	3	35	1	...	22	61
24. Other Circulatory Diseases, ...	3	21	...	...	8	32
25. Bronchitis, ...	...	28	...	...	12	40
26. Pneumonia (all forms), ...	4	48	3	...	9	64
27. Other Respiratory Diseases, ...	...	4	1	...	2	7
28. Diarrhœa and Enteritis, ...	6	4	1	1	3	15
29. Appendicitis and Typhlitis, ...	1	1	1	...	...	3
30. Cirrhosis of the Liver, ...	...	2	...	...	1	3
31. Other Digestive Diseases, ...	...	7	...	...	1	8
32. Nephritis and Bright's Disease,	1		...	...	1	12
33. Puerperal Fever, ...	...	10	...	...	...	1
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	...	1 ...	...	...	1	1
35. Cong. Debility, Malformation, including Premature Birth,	11	1	2	3	5	22
36. Violence, ...	1	11	...	...	9	21
37. Unknown, ...	...	...	...	...	...	...
38. All others, ...	4	60	5	...	23	92
All Causes, ...	66	352	27	11	149	605

TABLE XII.—GLASGOW.—DEATHS UNDER 1 YEAR, AND DEATH-RATE PER 1,00 BIRTHS IN EACH MUNICIPAL WARD, FOR THE YEAR 1923.

MUNICIPAL WARDS.	1923.	Death- rate per 1,000 Births.	
	DEATHS – 1 YEAR.	1923	1922.
1. Shettleston and Tollcross, ...	77	87	113
2. Parkhead, ...	72	75	108
3. Dalmarnock, ...	167	118	126
4. Calton, ...	146	113	124
5. Mile-end, ...	96	105	154
6. Whitevale, ...	67	97	147
7. Dennistoun, ...	22	64	78
8. Provan, ...	107	102	107
9. Cowlairs, ...	42	74	77
10. Springburn, ...	34	79	102
11. Townhead, ...	71	109	101
12. Exchange, ...	60	108	147
13. Blythswood.	39	105	104
14. Anderston, ...	73	89	135
15. Sandyford, ...	61	102	114
16. Park, ...	15	54	72
17. Cowcaddens, ...	126	89	128
18. Woodside, ...	105	107	115
19. Ruchill, ...	48	72	119
20. North Kelvin.	30	63	86
21. Maryhill, ...	44	71	96
22. Kelvinside, ...	13	62	38
23. Partick East, ...	59	87	114
24. ,, West, ...	44	74	108
25. Whiteinch, ...	30	53	100
26. Hutchesontown, ...	97	80	131
27. Gorbals, ...	151	96	150
28. Kingston, ...	99	95	158
29. Kinning Park, ...	93	90	126
30. Govan, ...	101	95	150
31. Fairfield, ...	39	51	88
32. Pollokshields, ...	19	58	91
33. Camphill, ...	12	41	40
34. Pollokshaws, ...	21	56	83
35. Govanhill, ...	29	50	94
36 Langside, ...	6	24	51
37. Cathcart, ...	11	60	28
Institutions, &c., ...	49	...	...
CITY, ...	2,375	89	120
+ Inward Transfers, ...	2,388	89	120

CAUSE OF DEATH.	AGE IN WEEKS.				Total – 4 weeks.	AGE IN MONTHS.											Total – 1 year.
	– 1	– 2	– 3	– 4		– 2	– 3	– 4	– 5	– 6	– 7	– 8	– 9	– 10	– 11	– 12	
I. IMMATURITY, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	487
(*a*) Premature Birth, ...	192	23	22	9	246	8	5	...	...	...	...	...	...	...	...	...	259
(*b*) Congenital Malformations, ...	18	12	4	2	36	6	5	2	1	1	...	2	...	...	...	...	53
(*c*) Atelectasis, ...	4	...	...	...	4	...	1	...	...	...	...	...	...	...	...		5
(*d*) Atrophy and Debility, ...	61	24	14	12	111	18	16	10	5	5	3	...	2	...	...	...	170
II. DISEASES OF RESPIRATORY SYSTEM, ...	4	6	10	10	30	20	23	31	15	24	22	19	21	29	15	16	265
III. DISEASES OF DIGESTIVE SYSTEM, ...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	162
(*a*) Diarrhœal, ...	2	4	2	6	14	21	21	18	15	6	7	8	6	7	7	5	135
(*b*) Others, ...	...	...	...	2	2	2	5	6	5	3	1	...	...	1	1	1	27
IV. DISEASES OF NERVOUS SYSTEM, ...	11	5	3	2	21	6	10	6	2	10	8	4	9	6	9	4	95
V. TUBERCULOUS DISEASES, ...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	47
(*a*) Abdominal Tuberculosis, ...	...	...	...	1	1	1	1	...	...	1	1	...	...	2	1	...	8
(*b*) Tubercular Meningitis, ...	...	...	...	...	...	...	...	1	2	4	8	4	3	2	2	3	29
(*c*) Other Forms, ...	...	...	...	...	...	...	1	...	...	1	1	...	1	1	1	4	10
VI. ACCIDENTS OF BIRTH, ...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	21
(*a*) Injury, ...	12	1	4	...	17	...	...	...	...	...	...	...	...	...	...	...	17
(*b*) Umbilical Hæmorrhage, ...	3	1	...	...	4	...	...	...	...	...	...	..	...	...	...	...	4
VII. INFECTIOUS DISEASES, ...	...	...	...	...	...	...	...	...	...	...	...	. .	...	...	...	..	172
(*a*) Whooping-cough, ...	...	...	...	...	...	3	3	4	7	5	6	7	9	9	6	10	69
(*b*) Measles, ...	...	1	...	...	1	1	...	1	2	2	5	13	10	13	13	17	78
(*c*) Scarlet Fever, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
(*d*) Cerebro-Spinal Fever, ...	...	...	...	...	...	...	...	2	2	...	...	2	...	2	...	...	8
(*e*) Erysipelas, ...	...	2	...	...	2	...	...	1	...	1	...	...	...	...	...	...	4
(*f*) Diphtheria and Mem. Croup, ...	...	...	...	...	...	...	3	...	1	...	...	2	1	2	...	1	10
(*g*) Chicken-pox, ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	..	1	2
(*h*) Smallpox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIII. SYPHILIS, ...	2	3	2	...	7	3	5	1	2	1	...	...	...	...	...	...	19
IX. SUFFOCATION, ...	...	1	...	1	2	2	1	...	...	...	...	...	...	...	...	..	5
X. OTHER VIOLENCE, ...	3	...	...	...	3	...	1	...	...	1	1	...	1	2	...	2	11
XI. ALL OTHER CAUSES, ...	8	3	3	8	22	12	6	2	3	1	3	2	3	3	...	2	59
	320	86	64	53	523	103	107	85	62	66	66	64	66	79	55	67	1,343

TABLE XIV.—GLASGOW, 1923.—FEMALE INFANT DEATHS at GIVEN AGES and from SEVERAL CAUSES.

CAUSE OF DEATH.	AGE IN WEEKS.				Total – 4 weeks.	AGE IN MONTHS.											Total. – 1 year.
	– 1	– 2	– 3	– 4		– 2	– 3	– 4	– 5	– 6	– 7	– 8	– 9	– 10	– 11	– 12	
I. IMMATURITY, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	400
(*a*) Premature Birth, ...	156	19	18	13	206	12	3	...	...	...	...	...	...	...	...	...	221
(*b*) Congenital Malformations, ...	14	6	5	3	28	5	3	1	2	1	...	1	...	...	1	...	42
(*c*) Atelectasis, ...	4	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	4
(*d*) Atrophy and Debility, ...	64	10	17	5	96	15	11	6	1	3	...	1	...	...	...	...	133
II. DISEASES OF RESPIRATORY SYSTEM, ...	3	4	10	5	22	18	4	18	10	19	11	20	23	22	21	26	**214**
III. DISEASES OF DIGESTIVE SYSTEM, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**106**
(*a*) Diarrhœal, ...	...	...	4	6	10	8	9	19	9	6	8	4	2	4	4	1	84
(*b*) Others, ...	...	1	...	3	4	1	1	1	2	4	1	2	4	2	...	...	22
IV. DISEASES OF NERVOUS SYSTEM, ...	2	1	3	1	7	11	4	2	2	4	5	2	4	6	3	3	**53**
V. TUBERCULOUS DISEASES, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**20**
(*a*) Abdominal Tuberculosis, ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2
(*b*) Congenital Malformations, ...	...	...	...	...	...	...	...	2	1	1	1	2	2	2	...	1	12
(*c*) Other Forms, ...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	3	...	6
VI. ACCIDENTS OF BIRTH, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**15**
(*a*) Injury, ...	9	3	...	1	13	...	...	...	...	...	...	...	...	..	...	...	13
(*b*) Umbilical Hæmorrhage, ...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
VII. INFECTIOUS DISEASES, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**152**
(*a*) Whooping-cough, ...	...	...	...	1	1	3	8	1	4	4	5	2	8	8	6	10	60
(*b*) Measles, ...	...	...	...	...	...	2	1	1	2	2	3	13	6	6	13	19	68
(*c*) Scarlet Fever, ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
(*d*) Cerebro-Spinal Fever.	...	...	...	...	...	...	...	...	2	...	1	...	...	1	1	1	6
(*e*) Erysipelas, ...	...	...	1	...	1	2	...	...	1	...	...	...	...	...	1	1	6
(*f*) Diphtheria and Mem. Croup, ...	...	...	...	...	...	1	1	1	...	1	...	1	2	...	2	2	11
(*g*) Chicken-pox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*h*) Smallpox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIII. SYPHILIS.	...	...	1	...	1	5	1	...	2	...	1	...	...	...	..	...	**10**
IX. SUFFOCATION, ...	...	...	...	...	...	2	3	...	...	1	...	...	...	...	...	...	**6**
X. OTHER VIOLENCE, ...	5	...	3	...	8	1	...	...	1	...	...	...	...	1	1	...	**12**

TABLE XV.—Glasgow, 1921-1923.—Abstract of Notifications under Notification of Births Act, 1907, and Results of Visits.

	1921	1922	1923
Total Number of Notifications, ...	31,140	29,493	28,032
Doctor at Home, ...	9,235	8,288	7,876
Doctor in Institution, ...	2,971	3,025	3,163
Maternity Hospital (Outdoor) Nurse, ...	3,352	3,678	3,635
Other Institutional Nurse, ...	577	661	566
Certified Midwife, ...	14,594	13,682	12,704
Others, ...	411	159	88
Total Cards issued, ...	21,905	21,205	21,412
Total Cards returned, ...	21,585	21,301	19,910
Full Information, ...	20,036	19,952	18,465
Doctor found in attendance, ...	116	105	66
Duplicates, ...	—	—	—
Wrong Address—Not Traced, ...	2	—	6
Others, ...	1,431	1,244	1,373

TABLE XVI.—Glasgow, 1921-1923.—BIRTHS Notified showing Medically and not Medically Attended.

	1921	1922	1923
otifications Received—*less Duplicates*—			
Total, ...	31,140	29,493	28,032
Live-births, ...	29,944	28,259	26,888
Still-births, ...	1,196	1,234	1,144
Per cent. Still-births to Total, ...	3·8	4·1	4·1
Medically attended—			
Total Births at Home, ...	9,235	8,288	7,876
In Institutions, ...	2,971	3,025	3,163
Total, ...	12,206	11,313	11,039
Per cent., ...	39·2	38·4	39·4
Still-births at Home, ...	358	319	286
Still-births in Institutions, ...	317	347	340
Not Medically attended—			
Maternity Hospital, Outdoor Nurse, ...	3,352	3,678	3,635
Other Institutional Nurses, ...	577	661	566
Certified Midwives, ...	14,594	13,682	12,704
Others, ...	411	159	88
Total, ...	18,934	18,180	16,993
Per cent., ...	60·8	61·6	60·6
Still-births.	521	568	518

TABLE XVII.—Glasgow, 1921-1923.—Cases of Infectious Disease Registered and Numbers Treated in Hospital.

	1921		1922		1923	
	Hosp.	Home.	Hosp.	Home.	Hosp.	Ho
A.—Notifiable—						
Fevers—Typhus, ...	6	...	20	...	2	..
Enteric, ...	101	7	79	6	114	
Continued and Undefined, ...	8	...	7	...	22	.
Puerperal, ...	306	15	246	48	255	
Smallpox, ...	20	...	...	...	...	
Scarlet Fever, ...	3,386	131	3,320	155	3,351	
Diphtheria and Membranous Croup, ...	1,762	94	1,615	74	1,699	
Erysipelas, ...	519	485	549	577	495	
Cholera, ...	...	...	...	...	...	
Cerebro-Spinal Fever, ...	60	3	62	5	61	
Ophthalmia Neonatorum, ...	76	847	37	729	48	
Trachoma, ...	11	57	9	41	11	
Acute Encephalitis Lethargica, ...	18	9	14	6	68	
Acute Polio-Encephalitis, ...	1	1	2	...	...	
Acute Poliomyelitis, ...	8	5	3	6	3	
Acute Primary Pneumonia, ...	1,490	1,828	2,568	3,399	2,576	1,
Acute Influenzal Pneumonia, ...	179	95	262	343	80	
Malaria, ...	6	60	7	10	6	
Dysentery, ...	28	18	2	12	2	
Trench Fever, ...	...	...	...	...	...	
Pulmonary Tuberculosis, ...	988	1,057	953	1,001	287	1,4
Other Forms of Tuberculosis, ...	308	833	411	639	304	
B.—Not Notifiable—						
Measles, ...	438	2,612	1,582	17,286	1,324	8,
German Measles, ...	139	351	25	104	26	
Whooping-cough, ...	801	9,947	275	2,575	503	4,
Chickenpox, ...	258	5,386	165	3,383	243	5,
Influenza, ...	22	21	7	4	...	
Mumps, ...	5	1	...	...	...	
Cancrum Oris, ...	...	...	1	...	...	
Others, ...	37[a]	1[b]	10[c]	...	11[d]	
Totals, ...	10,981	23,864	12,231	30,403	11,491	25,

(a) Enteritis, 28 ; Scabies, 2 ; Laryngitis, 2 ; Vincent's Augina, 3 ; Noma, 1 ; Anthrax, 1 ;
(b) Vincent's Angina, 1. (c) Vincent's Angina, 2. Enteritis, 8. (d) Vincent's Angina, 4 ;
Adenitis, 1 ; Enteritis, 6.

TABLE XVIII.—GLASGOW, 1919-1923.—CASE-RATES *per Million* FOR INFECTIOUS DISEASES.

	CASE-RATES PER MILLION.				
	1919	1920	1921	1922	1923
Notifiable—					
Fevers—Typhus,	30	8	6	18	2
Enteric.	103	204	100	79	116
Continued and Undefined.	8	13	7	6	20
Puerperal.	163	267	299	272	255
Smallpox,	5	477	19	...	...
Scarlet Fever,	2,443	3,378	3,272	3,212	3,277
Diphtheria and Membranous Croup,	1,626	1,809	1,727	1,561	1,623
Erysipelas,	822	977	934	1,041	940
Cholera,	1	...	...	...	...
Cerebro-Spinal Fever,	72	76	59	62	59
Ophthalmia Neonatorum,	656	706	859	708	570
Trachoma,	78	69	63	46	38
Acute Encephalitis Lethargica,	2	56	25	18	101
Acute Polio-Encephalitis,	27	3	2	2	1
Acute Poliomyelitis,	18	4	12	8	4
Acute Primary Pneumonia,	904	3,614	3,087	5.516	3,991
Acute Influenzal Pneumonia,	...	448	255	559	109
Malaria,	1,281	954	61	16	23
Dysentery,	105	73	43	13	6
Trench Fever.	11	...	...	...	...
Pulmonary Tuberculosis.	1,834	2,009	1,902	1,806	1,584
Other Forms of Tuberculosis,	1,083	1,063	1,061	970	1,133
Not Notifiable—					
Measles,	8,107	10,577	2,837	17.440	9,462
German Measles,	158	253	456	119	244
Whooping-cough	6,020	2.395	9,997	2,634	4,538
Chickenpox,	2,316	5,023	5,250	3,279	5,416
Influenza,	840	343	40	10	...
Mumps,	9	7	6	...	...
Cancrum Oris,	2	...	...	1	...
Others,	2	7	35	9	10
Totals,	28,726	34,813	32,414	39,405	33,522

TABLE

Cases of Infectious Disease Registered in each Month—Showing

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889

	Fevers								5				7		8		9		10		11	
	1 Typhus		2 Enteric, including Paratyphoid		3 Continued and Undefined		4 Puerperal		Scarlet Fever		Diphtheria and Membranous Croup		Erysipelas		Cerebro-Spinal Fever		Ophthalmia Neonatorum		Trachoma		Acute Encephalitis Lethargica	
	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home
Jan.	2	...	8	...	1	...	13	1	405	29	183	8	47	62	9	...	7	75	3	1		
Feb.	...	..	12	...	1	...	22	3	307	40	175	10	41	58	6	...	2	49	...	4	1	
Mar.	...	...	6	...	...	...	25	3	328	37	183	3	49	55	9	...	2	55	...	2	2	2
April	..	...	8	1	...	...	25	4	296	14	170	7	47	44	2	...	5	56	...	...		
May	...	...	7	...	6	...	19	2	284	16	139	7	42	41	5	..	4	55	2	5		
June	...	...	9	1	3	...	27	1	236	11	103	6	42	44	1	...	4	44	2	4		
July	...	...	12	3	4	...	26	1	164	5	76		34	20	9	1	2	32	1	2		
Aug.	...	...	17	1	2	...	12	...	223	6	72	2	30	35	2	...	5	40	...	2		
Sept.	...	..	15	3	2	...	22	1	254	13	121	2	38	40	6	1	3	39	2	7		
Oct.	...	...	7	1	1	...	20	2	350	13	144	6	30	48	5	1	8	42	1	2		
Nov.	...	...	2	1	2	...	27	4	291	18	149	6	54	43	4	...	4	42	...	2		
Dec.	...	...	11	1	..	...	17	1	214	15	184	11	41	39	3	...	2	44	...	...		
	2	...	114	12	22	...	255	23	3352	217	1699	68	495	529	61	3	48	573	11	31	7	4

ASGOW.

ated in Hospitals and under Supervision at Home during 1923.

FECTIOUS DISEASES REGULATIONS, 1919							TUBERCULOSIS REGULATIONS, 1914				OTHER INFECTIOUS DISEASES									
4	15		16		17		18		19		20		21		22		23		24	
Pneumonia	Acute Influenzal Pneumonia		Malaria		Dysentery		Pulmonary		Other Forms		Measles		German Measles		Whooping-cough		Chicken-pox		All Causes	
Home	Hosp.	Home	Hosp.	Home	Hosp	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home	Hosp.	Home
202	7	3	...	1	...	...	38	119	18	76	10	99	...	6	41	686	15	467	1017	1836
106	8	1	1	2	...	...	26	119	25	91	28	213	1	13	30	527	18	457	909	1695
134	9	1	...	3	...	1	37	139	27	102	45	422	3	22	60	634	24	631	1067	2265
189	14	2	...	3	...	...	21	113	30	89	50	598	3	26	37	620	24	646	975	2417
292	11	7	...	3	...	1	34	122	19	104	83	733	2	40	70	544	15	695	1060	2672
169	8	13	...	...	1	1	19	132	36	76	80	650	5	62	49	317	20	640	830	2173
84	5	1	2	...	...	...	23	99	35	64	69	146	2	5	56	46	18	81	678	591
59	3	1	1	2	...	1	25	125	29	82	94	212	2	2	22	391	21	255	701	1218
60	2	2	1	1	...	...	15	112	17	62	99	353	3	21	30	138	20	268	784	1126
77	5	2	...	2	...	...	23	111	30	55	204	1070	3	19	17	115	26	484	1071	2052
157	3	2	1	1	...	...	14	132	20	59	211	1970	2	9	36	223	31	570	1102	3239
241	5	4	...	1	1	...	12	115	18	70	351	2515	...	15	55	198	11	461	1287	3731
1770	80	39	6	19	2	4	287	1438	304	930	1324	8981	26	240	503	4439	243	5655	11,481	25,015
Add others—Vincent's Angina, 4 ; Adenitis, 1 ; Enteritis, 6,																		...	11	...
																			11,492	25,105

TABLE XX.—HOSPITAL BED ACCOMMODATION FOR INFECTIOUS DISEASES IN GLASGOW SINCE 1865 (EXCLUDING TUBERCULOSIS).

YEAR.	PARISH.			Glasgow Royal Infirmary.	LOCAL AUTHORITY.						Total Beds.	Population in Thousands.	Beds per
	City.	Barony.	Govan.		Parliamentary Road.	Belvidere Fever.	Belvidere Smallpox.	Ruchill.	Shieldhall.	Knightswood.			
1865	100	120	54	200	136	...	...	...	...	...	610	428	1·
1866	100	120	54	175	136	...	...	...	...	...	585	438	1·
1867	...	120	54	100	136	...	...	...	...	...	410	446	0·
1869	...	120	54	135	136	...	...	...	...	...	445	464	1·
1870	...	120	54	100	250	250	...	...	...	...	774	471	1·
1872	...	120	...	100	250	250	...	...	...	...	720	495	1·
1875	...	...	...	100	250	250	...	...	...	...	600	500	1·
1876	...	...	...	...	250	250	...	...	...	...	500	502	1·
1878	...	...	...	...	120	250	150	...	...	...	520	507	1·
1880	...	...	...	...	120	250	150	...	...	...	520	510	1·
1881	...	...	...	...	120	370	150	...	...	...	640	512	1·
1882	...	...	...	...	120	220	150	...	...	...	490	518	1·
1887	...	...	...	...	120	390	150	...	...	...	660	545	1·
1893	...	...	...	...	200	390	150	...	...	...	740	678	1·
1900	...	...	...	...	200	390	150	440	...	...	1180	744	1·
1901	...	...	...	...	200	390	220	440	...	...	1250	764	1·
1906	...	...	...	...	...	390	220	440	...	...	1050	836	1·
1910	...	...	...	...	...	390	220	542	...	...	1152	884	1·
1913	...	...	...	...	...	390	220	542	100	81	1333	1032	1·
1915	...	...	...	...	...	390	220	542	100	10	1262	1035	1·
1923	...	...	...	...	...	390	220	542[1]	100[2]	114[3]	1366	1089	1·

[1] Also 272 beds for Tuberculosis.

[2] ,, 24 ,, ,,

[3] ,, 80 ,, ,,

The City has also a part interest in Lightburn Hospital—about 7-8 beds.

,, ,, ,, Darnley ,, ,, 20 ,,

TABLE XX.—(*Continued*).

Institutional Accommodation for Patients suffering from Tuberculosis:—

	Males.	Females.	Total.
(1) SANATORIA—			
Local Authority, Bellefield, ...	—	52	52
Ochil Hills, ...	65	8	73*
Bridge of Weir, ...	27	45	72*
Dunblane, ...	8	4	12
Darnley, ...	12	—	12
Seaforth, ...	5	4	9
Hairmyres, ...	7	—	7
Others, ...	3	—	3
Total Beds in Sanatoria,	127	113	240

	Males.	Females.	Total.
(2) HOSPITALS—			
Local Authority, Ruchill, ...	136	136	272
,, Knightswood,	80	—	80
,, Shieldhall, ...	24	—	24
,, Robroyston, ...	224	224	448
,, Auxiliary, ...	34	66	100
Lanfine Home, ...	14	11	25*
Total Beds in Hospital,	512	437	949
(3) POOR LAW INSTITUTIONS, ...	101	59	160*
Total Institutional accommodation, ...	740	609	1,349

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* The number is not fixed; these figures are based on an average experience of 12 months.

TABL

CITY OF GLASGOW INFECTIOU

RETURN BY THE MEDICA

SHOWING NUMBER, AVERAGE RESIDENCE, AN

Ordinary Nett Expenditure (as per Treasurer's Statement), excluding Interest a Sinking Fund Charges, and Cost of treating Patients from Rutherglen :—

Infectious Diseases Hospital, Belvidere, ...	£70,170	1	4	
Infectious Diseases Hospital, Ruchill, ...	91,161	1	0	
Infectious Diseases Hospital, Shieldhall, ...	16,225	1	9	
Infectious Diseases Hospital, Knightswood,	19,173	12	5	
Sanatorium and Auxiliary Hospital, Robroyston, ...	55,052	6	5	
				£251,782 2

Average Daily Number of Patients in Infectious Diseases Hospital, Belvidere, ...	5
Average Daily Number of Patients in Infectious Diseases Hospital, Ruchill, ...	7
Average Daily Number of Patients in Infectious Diseases Hospital, Shieldhall, ...	1
Average Daily Number of Patients in Infectious Diseases Hospital, Knightswood,	1
Average Daily Number of Patients in Robroyston Sanatorium and Auxiliary Hospital, ...	5
Average Daily Number of Patients in Hospitals, ...	2,1

	Belvidere Hospital.	Ruchill Hospital.	Shieldhall Hospital.	Knightswood Hospital.	Robroyston Hospital.	Total.
Patients remaining at 31st May, 1923, ...	566	811	115	156	539	2,1
Patients admitted during 1923-1924, ...	5,571	5,989	905	1,114	790	14,3
Total under Treatment, 1923-1924, ...	6,137	6,800	1,020	1,270	1,329	16,5
Patients dismissed during 1923-1924, ...	5,585	6,065	906	1,095	813	14,4
Patients remaining at 31st May, 1924, ...	552	735	114	175	516	2,0

Average Residence of Patients dismissed, 1923-1924, ... 48·97 days.

EASES AND SMALLPOX HOSPITALS.

ICER OF HEALTH

OF TREATMENT OF PATIENTS, 1923-1924.

	£	s.	d.
age Daily Expenditure, ...	£687	18	4
age Daily Cost per Patient, ...	0	6	5
age Cost of Treatment per Patient, ...	15	14	6
age Cost of Bed per Year, ...	117	10	5

STATEMENT SHOWING PATIENTS CLASSIFIED AS TO DISEASE, AVERAGE RESIDENCE OF PATIENTS DISMISSED, AND AVERAGE COST AT THE DAILY RATE GIVEN ABOVE.

Disease.	Number Dismissed.	Average Residence.		Average Cost.		
ius, ...	1	141	days	£45	4	9
llpox, ...	5	17·4	,,	5	11	9
ric, ...	83	67·08	,,	21	10	9
rax, ...	—	—			—	
peral, ...	179	37·85	days	12	3	1
let, ...	2,747	52·28	,,	16	15	8
itheria, ...	1,567	44·31	,,	14	4	7
phalitis Lethargica, ...	32	58·22	,,	18	13	5
-encephalitis, ...	—	—			—	
-myelitis, ...	—	—			—	
e Primary Pneumonia and nfluenzal Pneumonia, ...	2,500	21·16	days	6	15	10
ical Diseases, ...	12	27·91	,,	8	19	2
sles and German Measles, ...	2,901	26·15	,,	8	7	11
oping-cough, ...	938	43·80	,,	14	1	2
isis, ...	1,505	103·65	,,	33	3	8
ical Tuberculosis, ...	476	241·84	,,	77	13	1
r Infectious Diseases, ...	756	34·33	,,	11	0	6
ther Diseases, ...	762	20·93	,,	6	14	5
	14,464					

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* Includes Erysipelas, Cerebro-Spinal Fever, Chickenpox, and Influenza.

† Includes Nursing Mothers, also Persons sent in by mistaken diagnosis.

TABLE XXII.—GLASGOW.—STATUTORY DECLARATIONS OF CONSCIENTIO OBJECTION TO VACCINATION IN EACH WARD DURING 1923.

MUNICIPAL WARDS.	Conscientious Objections Lodged.	Percenta of Birt Register
1. Shettleston and Tollcross, ...	185	21
2. Parkhead, ...	181	19
3. Dalmarnock, ...	311	22
4. Calton, ...	183	15
5. Mile-end, ...	175	19
6. Whitevale, ...	108	16
7. Dennistoun, ...	42	12
8. Provan, ...	173	17
9. Cowlairs, ...	168	30
10. Springburn, ...	126	29
11. Townhead, ...	140	22
12. Exchange, ...	86	15
13. Blythswood, ...	38	10
14. Anderston, ...	140	17
15. Sandyford, ...	70	12
16. Park, ...	35	13
17. Cowcaddens, ...	207	15
18. Woodside, ...	133	14
19. Ruchill, ...	155	23
20. North Kelvin, ...	91	19
21. Maryhill, ...	107	17
22. Kelvinside, ...	16	8
23. Partick (East), ...	110	16
24. ,, (West), ...	122	21
25. Whiteinch, ...	136	24
26. Hutchesontown, ...	293	24
27. Gorbals, ...	260	17
28. Kingston, ...	293	28
29. Kinning Park, ...	297	29
30. Govan, ...	387	36
31. Fairfield, ...	351	46
32. Pollokshields, ...	30	9
33. Camphill, ...	37	13
34. Pollokshaws, ...	115	31
35. Govanhill, ...	133	23
36. Langside, ...	29	12
37. Cathcart, ...	28	15
Institutions, &c., ...	6	7
City, ...	5,497	21

TABLE XXIII.—General Sanitary Operations.—(*a*) Food and Drugs, &c.

Year.	1923.	1922.	1921.
I. Milk Purveyors.			
Registered during year,	285	398	231
Removed from Register,	258	263	184
n Register at 31st Dec.,	1,517	1,490	1,355
Number of Inspections,	21,490	20,066	19,721
ontraventions of Orders or Regulations,	36	116	89
Prosecutions for same,	7	5	4
epairs or Improvements effected,	62	54	62
II. Dealers in Ice Cream.			
Registered during the year	116	121	145
Removed from Register,	86	84	128
Register at 31st Dec.,	721	691	654
Number of Inspections,	8,866	8,658	9,427
ontraventions of Orders or Regulations,	33	77	92
Prosecutions for same,	5	...	5
epairs or Improvements effected,	17	22	35
III. Byres for Milch Cows.			
umber of Dairy Byres as at 31st Dec.,	52	53	53
,, Cows licensed for,	974	1,007	1,024
verage number kept,	679	725	743
umber of Inspections,	426	510	541
ontraventions of Rules or Regulations,	22	22	17
Prosecutions for same,	...	...	...
epairs or Improvements effected,	3	...	3
IV. Unwholesome Food.			
umber of Inspections,	11,230	11,270	11,732
,, Lots dealt with,	39	37	71
ature of Food destroyed at Inspector's instance with Owner's consent—			
Condensed Milk,	...	...	20 tons. 161bs.
Eggs,	56	732	500
Canned Food (various), (lbs.)	5,499	3,935	8,935
Cured Meats, ,,	...	60	723
Flour, ,,	2,850	6,412	...
Fruit (Dried and Soft), ,,	27,446	19,460	15,410
Margarine, ,,	21	...	...
Pork (Fresh and Cured), ,,	320	...	...
Preserves, ,,	...	...	100
Vegetables, ,,	32,840	7,356	48,321
Nuts, ,,	...	780	12,510

TABLE XXIII. (*Continued*).

Year.	1923.	1922.	19
V. Food and Drugs and Margarine Acts.			
Samples examined by Inspectors, ...	...	...	..
Informal Samples analysed, ...	3,725	3,613	5
Statutory Samples analysed, ...	1,385	1,364	57
Statutory Samples found Non-genuine, ...	... 118	128	13
Proceedings instituted, ...	... 51	82	72
Fines and Expenses imposed, ...	£301 5/	£277 19/	£43 [illegible] 6
Non-convictions, ...	... 6	37	18
Prosecutions for Margarine Offences, ...	... 9	9	3
Fines and Expenses imposed, ...	... £12	£20 3 6	£[illegible] 6
Non-convictions, ...	...	1	1
Obstruction, ...	1	...	..
Fines imposed, ...	£5	...	..
Vending Milk without name and address being on vessel,	1	4	..
Number of Convictions, ...	1	4	.
Amount of Fines, ...	£2	£5	..
VI. The Sale of Horse-Flesh Regulation Act, 1889.			
Number of premises in which Horse-flesh is sold, ...	...	...	.
Prosecutions for contravention of Act, ...	...	.	
Fines imposed, ...	...	...	
VII. Fish and Game Inspection.			
Under the Glasgow Police Amendment Act, 1890.			
Number of Packages of Fish, Game, Poultry, and Rabbits passed through Fish Market, ...	1,518,667	1,508,023	1,4[illegible]
Number of Inspections of Fish Shops, Restaurants, and Hawkers' Barrows and Carts, ...	1,209	1,353	22[illegible]
Number of Nuisances discovered therein, ...	...	...	.
Fish and Game destroyed with consent—			
Fresh Fish, ... (lbs.)	143,403	121,019	2[illegible]
Cured Fish, ... ,,	23,623	36,918	[illegible]712
Shell Fish, ... ,,	600	112	344
Crabs, ... ,,	...	518	.
Lobsters, ... ,,	576	...	81
Venison, ... ,,	142	429	.
Rabbits, ... ,,	4,075	2,052	78[illegible]
Game, ... ,,	...	...	46
Poultry, ... ,,	696	735	24[illegible]

TABLE XXIII—(*Continued*).

(*b*) Air Purification.

Year.	1923.	1922.	1921.
Smoke Prevention.			
Glasgow Police (Further Powers) Act, 1892, Sec. 31.			
Number of Inspections of Boiler and other Furnaces, ...	1,860	1,996	1,297
„ Observations of Chimneys, ...	30,264	29,759	19,509
„ Intimations of Excess Smoke given, ...	538	509	332
„ Warning Notices to those contravening the Act, ...	59	43	18
„ Prosecutions in Police Courts, ...	66	75	57
„ Convictions, ...	62	72	57
Amount of Fines imposed, ...	£85 15/6	£128 10/6	£105 17/
Number of Prosecutions withheld on receiving a promise from Offenders to improve the Furnace Plant, ...	6	2	9
„ Prosecutions withheld on account of accidents to Furnace Plant, or, regular Fireman temporarily off duty, ...	5	1	4
„ New Steam Boilers installed to give increased power, ...	5	3	3
„ Mechanical Stokers fitted to Steam Boiler Furnace,...	7	2	2
„ Boiler Furnaces fitted with Smoke-preventing Appliances, ...	1	4	...
„ Furnaces in which Anthracite, Coke, or other non-bituminous Fuel has been substituted for ordinary Coal, ...	19	12	21
„ Furnaces adapted for Smokeless Combustion of Oil Fuel, ...	...	2	8
„ Steam Boilers replaced by Electric Motors (using Corporation power), ...	9	6	7
„ Furnaces formerly Coal-fired, reconstructed for use of Corporation gas, ...	...	2	4
„ Electric Heaters substituted for open coal fires in business premises, ...	...	2	...
„ New Chimneys erected or existing Chimneys heightened to give increased draught and carry gases higher, ...	10	2	3
„ Improvements to Furnaces not coming under any of the above headings, ...	2	9	4
Spraying Dungsteads, Ashpits and Privies.			
Total number of Dungsteads Sprayed from 7th May, till 29th September, ...	20,558	21,426	14,884
Total Outlay for Wages, Plant, and Material, ...	£504	£508	£403 7/10
Interments.			
For year ending 31st May.	1924	1923	1922
Total number of Applications granted for Interment of Unclaimed and other Bodies, ...	748	653	682
Total Expenditure, ...	£1,550 13/6	£1,266 2/3	£1,607 15/6
Payment of Costs recovered, ...	£330 16/2	£213 15/2	£245 19/3

TABLE XXIII.—(*c*) Summary of Operations of Sanitary Sectio

District.	EASTERN.							
Ward.	1	2	3	4	5	6	7	8
I. Nuisances.								
Total Inspections made for discovery of Nuisances, ...	32157	30932	49918	51653	36574	15041	11937	240
Nuisances discovered and recorded, ...	2203	2034	3472	4066	2505	1252	808	22
Do. removed or remedied, ...	2124	1966	3479	4023	2416	1179	801	21
Consisting of Accumulations of Garbage on Roofs, Courts, &c., or in Empty Houses or Cellars, or open wastage, ...	78	61	208	276	91	21	36	
Apartment, Lobby, or W.C. with insufficient light or ventilation, ...	5	...	1	13	5	...	...	
Animals or Poultry kept, so as to cause a nuisance, ...	...	...	...	2	1	...	...	
Bad Smells, or Diphtheria or Enteric Fever in Dwelling, ...	20	38	47	53	39	25	19	
Dwellings without Water Supply, ...	24	28	140	95	125	31	12	
Dead Animal Matter under Floor, ...	...	...	...	...	...	1	...	
Defective Window in Dwelling, ...	10	2	1	25	1	1	...	
Domestic Water Supply from Cistern in W.C.; or Cistern in Attic, foul and uncovered, ...	...	...	...	...	...	...	1	
Drains, Soil-pipes, Branches, &c., choked, defective or out of repair, ...	904	848	756	1101	403	520	298	7
External Walls of Dwellings, Stairs, Lobbies, or Closets filthy, ...	152	125	311	312	239	107	119	2
Internal Walls or Floors of House, or W.C., or Lobbies, or Stairs filthy, ...	216	272	607	728	641	228	39	4
House Damp, or otherwise rendered unfit for habitation, ...	28	21	18	72	17	21	5	
Sink, or W.C., or Trap, choked or broken or out of repair, ...	412	284	788	626	690	189	134	2
Nuisances in Bakehouses, ...	...	4	1	14	6	1	...	
Roofs, Walls, or Ceilings of Dwellings broken or out of repair, ...	57	55	56	252	48	25	10	
Rhones, Pipes, or Gutters broken or out of repair, ...	34	9	154	131	27	22	20	
Smoky Vents, or Back Smoke, causing a nuisance, ...	9	10	28	51	20	15	8	
Sink accommodation defective, or new required, ...	3	...	...	20	...	...	...	
Water-Closet accommodation required, ...	...	...	...	8	2	...	1	
Water-Closet defective in construction, ...	...	...	4	..	...	...	...	
Water-Closet accommodation in Workshops defective, ...	1	1	...	5	1	...	...	
Workshops filthy, ...	4	2	10	13	5	...	5	
Workshops overcrowded, ...	...	...	...	...	...	...	...	
Workshops defective in ventilation or light,	...	...	...	...	...	...	...	
Waste of Water reported to the Engineer and remedied, ...	165	174	99	104	48	25	43	1
Complaints to Master of Works remedied,	81	100	243	165	96	20	58	1
Reported to Procurator-Fiscal for prosecution before the Sheriff, ...	...	...	...	...	1	...	...	
Summoned before the Police Magistrates,	1	...	17	...	9	...	2	
Number of Rotation Cards for Cleansing of Common Stairs, Lobbies, and Water-Closets served on Tenants, ...	231	99	527	325	342	98	106	10
Pigstyes inspected for Licensing Court, ...	5	38	...	...	...	9	..	

THE YEAR 1923—*Continued.*

NORTHERN.

	10	11	17	18	19	20	21
20	13891	18625	29490	25305	11238	15005	12815
59	1378	1610	3346	2712	1410	1369	1137
02	1310	1587	3296	2646	1375	1345	1085
65	64	49	255	84	28	117	19
...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...
32	28	44	80	79	45	31	46
10	19	32	74	44	9	6	7
...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...
64	53	10	...	...	81	34	48
19	490	515	1098	862	605	511	488
70	117	150	300	253	152	87	46
79	114	289	516	483	190	109	199
11	89	32	24	25	9	30	13
92	194	153	538	478	176	187	110
5	...	8	16	14	1	2	1
9	30	27	40	35	13	13	13
14	17	47	31	52	4	62	35
12	18	14	16	17	16	11	12
...	...	...	...	...	...	...	...
1	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...
...	...	...	1	1	1	...	...
10	2	7	5	2	6	7	2
...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...
26	84	102	247	163	56	107	67
39	58	131	105	119	17	54	29
...	...	...	...	...	...	...	...
...	...	6	6	4	...	...	...
24	63	342	265	115	2	169	44
5	20	...	2	...	9	...	11

TABLE XXIII.—(*c*) SUMMAR

CENTRAL.

12	13	14	15	16	22	23
24829	17014	28487	32117	17289	15398	16479
2722	1525	2400	2627	629	787	2170
2670	1542	2478	2657	627	769	2174
157	181	224	204	66	95	107
2	1	...	2	...	...	2
1	...	...	...	...	...	...
23	22	56	48	15	25	56
105	10	40	70	5	2	28
1	...	1	. .	...	...	...
43	7	18	5	4	7	41
...	1	30	...	...	...	...
529	349	674	639	224	283	653
207	280	283	287	124	67	169
756	215	337	631	26	67	326
9	9	13	13	2	7	25
305	177	359	336	45	53	306
20	9	6	13	7	2	6
211	78	83	91	15	39	141
44	15	50	59	35	57	99
35	19	28	35	9	...	19
...	1	. .	...	...	...	2
5	3	...	7	...	...	3
3	...	2	...	...	...	...
4	4	...	1	2	...	...
18	49	4	15	4	2	9
...	...	...	...	...	...	...
1	5	...	2	1	...	...
102	52	178	112	32	34	12
89	55	92	87	11	29	5
1	...	...	...	...	...	..
5	6	5	16	...	.	4
226	233	275	464	73	290	22
...	...	...	...	...	13	..

PERATIONS OF SANITARY SECTION FOR THE YEAR 1923.—*Continued.*

	SOUTH-EASTERN.							SOUTH-WESTERN.					CITY.	1922.
25	26	27	33	34	35	36	37	28	29	30	31	32		
9975	50604	68530	21472	16257	19597	19811	13212	38964	34466	38691	19978	11505	928093	855037
79	3888	6058	873	1053	1388	578	601	4461	3874	5051	2186	1097	78865	72868
805	3883	6115	892	1038	1386	622	637	4362	3828	4980	2106	1126	77769	72054
35	346	355	40	15	75	17	12	179	105	134	55	35	3960	3875
1	...	1	2	1	...	...	...	4	1	...	1	4	46	25
...	...	1	...	...	...	1	...	2	...	8	1	...	18	22
19	9	16	5	5	5	5	5	33	32	26	16	12	1159	1021
4	152	127	4	...	15	10	10	91	66	50	4	5	1510	1567
1	...	2	1	1	2	1	...	1	2	1	...	...	15	7
16	26	131	2	5	13	1	5	23	16	31	14	4	494	358
...	1	...	29	...	24	58	71	...	...	...	...	9	773	592
311	1592	1888	436	495	535	275	311	1498	1418	1500	922	602	26157	24318
76	563	439	99	72	279	57	91	387	355	496	445	107	7687	6792
41	310	992	53	43	113	41	25	802	248	488	123	39	10898	11581
3	21	34	6	2	4	3	2	27	16	9	2	8	755	464
79	290	978	50	150	130	30	20	476	578	1167	227	101	11331	10758
..	11	19	7	3	2	2	4	6	9	12	4	2	218	174
71	77	340	6	87	39	11	8	188	169	359	70	32	2929	1955
58	83	116	82	136	65	31	16	96	139	96	43	32	2114	1495
6	25	46	4	11	9	2	3	46	38	65	20	6	720	620
..	1	2	...	...	...	...	1	1	...	...	...	...	31	4
...	1	2	...	...	2	1	1	1	...	1	...	1	45	29
.	...	...	...	...	...	...	1	...	1	...	...	1	12	11
..	...	...	...	...	...	...	...	...	...	...	...	1	23	23
2	11	32	2	1	4	2	2	12	8	15	5	6	290	392
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
.	...	...	...	...	..	...	...	...	1	...	...	1	12	11
72	127	353	38	2	47	66	15	381	378	361	126	54	4428	4483
10	237	241	26	9	23	8	34	108	248	161	28	54	3085	2288
.	...	...	2	...	...	...	...	...	...	...	...	...	4	14
1	1	3	...	...	. .	...	...	5	6	4	...	...	112	118
14	37	569	168	69	82	90	16	560	507	340	104	226	8451	8901
5	...	...	...	3	...	3	4	..	...	5	2	...	143	212

TABLE XXIII.—(c) SUMMARY OF OPERATIONS OF SANITARY SECTI

District.	EASTERN.							
Ward.	1	2	3	4	5	6	7	8
II. Drain Testing.								
Total number of Applications of the test at different times, ...	137	117	96	71	59	46	50	3
Number of new Applications for satisfaction of Dean of Guild Court, ...	56	50	1	4	6	4	3	
Number of old Tenements or Systems to which they were applied for the first time,	22	33	45	38	31	21	27	:
Number of these found all right on first application of Test, ...	13	7	9	11	6	1	7	
Number found more or less defective on first application, ...	9	26	36	27	25	20	20	
III. Houses Let in Lodgings and Farmed-out Houses.								
Number Inspected, Measured, and Registered,	...	...	1	...	1	1	...	
Number now on Register, Houses Let in Lodgings,	...	...	4	2	3	5	...	
Number now on Register, Farmed-out Houses, ...	...	...	...	143	43	...	.	
Number of Re-inspections by Day, ...	3	5	1	1145	234	1	...	
Do. do. by Night, ...	2	...	3	845	182	8	...	
Do. of Keepers Summoned for Contravening Regulations, ...	...	...	...	...	..	...	...	
Do. do. Fined for same, ...	..	..	...	...	...	...	..	
Amount of Fines, ...	...	...	...	...	...	.	..	
IV. Visits by Female Inspectors.								
Number of Houses visited, first time, ...	2381	4180	2947	4549	3658	3974	382	32
Number of Houses in which Lodgers were found, ...	194	380	363	532	215	294	24	1
Number of Houses and Bedding found Dirty, dealt with by statutory notice,	89	148	167	413	174	174	20	3
Number of Houses revisited, ...	118	215	213	549	232	209	29	5
Number of Houses found improved, ...	86	153	165	371	150	157	21	2
Number of Nuisances reported by Female Inspectors, ...	29	25	29	41	21	4	4	
Number of Infectious Disease Cases reported,	3	...	6	4	1	1	1	
Under the Glasgow Corporation (Police) Order, 1904, dealing with Filthy Houses and Dirty or Verminous Children :—								
Number of Visits to Schools, ...	75	58	99	98	105	25	39	
Number of Children submitted for inspection, ...	1081	1454	2029	1273	2760	99	404	1
Number of Children found Verminous,	196	408	455	399	710	75	117	
Number of Children found Dirty, ...	25	12	195	118	83	2	3	
Number of Homes inspected,... ...	132	251	435	356	378	138	32	4
Number of Homes Re-inspected, ..	...	3	23	33	8	...	...	
Number of Dirty Houses, ...	4	8	18	19	10	2	2	

THE YEAR 1923—*Continued.*

NORTHERN.

10	11	17	18	19	20	21
39	78	164	93	139	48	97
3	...	9	2	32	...	11
20	41	67	41	41	22	41
...	2	2	2	1	1	3
20	39	65	39	40	21	38
...	...	5	1	...	...	...
2	1	10	6	...	..	...
...	10	140	...	...	...	...
2	132	657	5	...	...	...
6	26	737	4	...	...	8
...	...	...	...	...	...	...
...	...	...	...	...	...	...
...	...	...	...	...	..	...
839	1766	2018	3291	1597	617	1689
50	74	222	94	34	17	33
68	209	237	327	134	45	145
85	333	394	481	162	67	205
61	195	230	288	114	36	125
4	4	6	35	5	5	28
...	...	...	...	...	...	...
34	77	114	98	9	1	52
541	950	1998	868	126	...	770
479	640	1277	486	64	1	416
38	43	20	88	25	...	55
160	332	1009	547	127	70	292
3	25	59	30	5	7	9
8	12	23	22	4	2	11

TABLE XXIII.—(*c*) SUMMA

CENTRAL.						
12	13	14	15	16	22	23
45	46	93	62	41	99	79
4	2	1	4	4	24	6
18	22	46	29	19	37	38
1	1	11	4	3	18	2
17	21	35	25	16	19	36
1	...	5	3	...	...	...
19	8	2	7	...	...	
382	7	53	...	...	...	2
1294	77	285	6	...	...	26
1215	63	196	20	...	...	10
...	...	...	...	...	...	
...	...	...	...	...	...	
...	...	...	...	...	..	£3 3/
4615	2624	1511	1024	51	44	451
151	165	14	20	...	...	27
53	32	48	21	...	...	18
99	61	26	12	...	...	28
49	33	44	21	...	...	18
...	...	...	...	...	...	
...	...	...	...	...	...	
64	1	59	64	18	...	
799	...	1548	1249	530	...	
39	...	40	56	2	...	
8	...	15	23	2	...	
198	354	594	477	65	...	
...	2	1	4	...	...	
...	2	2	5	...	...	

ERATIONS OF SANITARY SECTION FOR THE YEAR 1923—*Continued.*

	SOUTH-EASTERN.							SOUTH-WESTERN.					CITY.	1922.
25	26	27	33	34	35	36	37	28	29	30	31	32		
5	45	44	32	87	30	14	168	25	32	37	98	636	3492	3810
18	19	3	12	27	13	7	89	2	1	6	29	221	687	360
16	8	10	5	5	5	3	6	1	2	2	1	4	881	883
..	...	1	1	1	1	...	...	...	...	...	...	...	124	105
16	8	9	4	4	4	3	6	1	2	2	1	4	757	778
...	...	2	...	...	...	...	...	5	...	2	...	...	29	35
9	...	21	...	...	..	...	...	25	...	2	...	...	144	143
...	...	134	...	...	...	...	...	12	...	...	...	...	958	980
..	...	2430	...	...	...	...	...	177	8	12	...	...	6754	6585
27	...	664	...	...	...	...	...	13	2	3	...	...	4163	4826
..	...	3	...	...	...	...	..	...	...	...	...	...	6	9
..	...	...	...	...	...	...	..	...	...	...	...	...	1	7
...	...	...	...	...	...	...	..	...	...	...	...	..	£3 3/	£8 6/-
91	2178	6572	...	183	196	2	..	2641	792	1334	92	...	69218	61398
95	177	1072	...	25	16	...	...	175	12	...	...	...	4996	4568
34	116	370	...	5	11	...	...	107	13	12	..	..	3812	3848
55	225	507	...	5	26	...	..	171	13	5	...	...	5487	6216
3	112	368	...	5	11	...	...	106	13	11	...	...	3536	3832
..	..	...	...	..	...	...	...	12	12	...	...	..	279	312
	...	...	...	...	...	...	..	1	...	...	...	...	17	8
11	97	165	...	76	58	...	..	71	112	122	34	13	1921	1820
19	1655	2417	...	875	756	...	..	1365	3414	2187	545	296	33502	30923
4	230	376	...	136	109	...	..	117	235	233	76	..	8188	7655
1	38	133	...	23	10	..	..	41	25	2	4	...	1136	988
37	252	406	...	147	68	..	...	443	643	579	89	22	9154	9327
3	17	8	...	3	8	..	...	3	23	8	...	..	302	315
1	8	8	...	3	3	...	...	1	21	7	...	..	224	238

TABLE XXIII.—(*c*) Summary of Operations of Sanitary Sect

District.	EASTERN.						
Ward.	1	2	3	4	5	6	7
IV. Visits by Female Inspectors— *Continued.*							
Number of Dirty Bedding, ...	1	2	6	9	6	1	..
Number of Notices served, ...	27	65	60	75	61	24	6
Number of Houses Cleaned in consequence, ...	6	6	11	15	7	...	...
Number of Bedding Cleaned in consequence, ...	...	1	4	2	3	1	...
Number of Bedding Cleaned at Sanitary Wash-house, ...	...	...	...	...	...	...	...
Number of Children Cleaned by Guardians, ...	15	28	25	33	15	10	3
Number of Children Cleaned by Officers, ...	2	...	...	..	...	...	..
Number of Applicants supplied with Insecticide, ...	...	...	...	1477		...	..
V. Factories, Workshops, and Home-workers' Dwellings.							
Total number of Workshops on the Registers at 31st December, ...	154	148	132	450	142	204	81
Total Inspections made, ...	484	229	311	1057	341	951	301
Apartments Measured and Registered during the Year, ...	5	12	14	14	25	2	3
Number of Workshops found defective in Light or Ventilation, ...	...	...	...	..	...	...	...
Number found defective in Water-closet Accommodation, ...	...	1	...	3	1	...	...
Number requiring Limewashing, ...	4	1	7	12	6	...	4
Number of other Defects, ...	5	5	1	28	11	2	..
Number who carried out Improvements suggested by Inspector, ...	6	7	10	39	15	2	6
Prosecutions, ...	...	...	...	...	1	...	...
Convictions, ...	...	...	...	...	1	...	...
Number found Overcrowded, ...	...	...	...	...	...	...	..
Number of Visits made under the Homework Order, ...	15	10	80	24	36	20	23
Number of Premises found dirty and Intimations issued, ...	...	...	...	...	...	...	...
VI. Bakehouses.							
Number of Inspections for Cleanliness, &c.,	76	67	72	159	126	87	50
Number of Warnings issued for neglect of Cleanliness, ...	...	3	1	...	4	1	...
VII. Rag Flock Act, 1911.							
Samples submitted for Analysis, ...	1	8	4	3	5	10	2
Certified not to conform to Standard, ...	...	...	...	...	...	...	...
Proceedings instituted, ...	...	...	...	...	...	...	...
Convictions, ...	...	...	...	...	...	...	...

THE YEAR 1923—*Continued.*

NORTHERN.

10	11	17	18	19	20	21
2	13	76	21	3	2	6
28	76	196	95	10	4	61
8	12	23	22	4	2	11
2	13	76	21	3	2	6
...	...	...	...	...	...	1
22	47	99	29	5	...	34
...	...	...	...	...	...	4
...	2896		...	...	...	...
16	96	161	162	60	55	55
86	195	271	349	142	191	68
...	8	5	18	16	1	...
...	..	...	1	...	...	...
..	...	1	1	1	...	...
2	7	5	2	6	7	2
2	8	17	14	1	2	1
4	15	23	18	8	9	3
...	...	...	...	...	...	...
...	...	...	...	...	...	...
...	...	...	...	...	...	...
9	40	32	33	14	16	14
...	1	...	...	...	...	1
...	40	70	81	10	20	11
...	8	16	14	1	2	1
...	2	3	...	...	...	2
...	...	...	...	...	. .	...
...	...	...	...	...	...	...
...	..	...	...	..	...	...

TABLE XXIII.—(*c*) SUMMA

CENTRAL.						
12	13	14	15	16	22	23
...	2	3	5	...	...	...
47	4	60	89	4	...	...
...	1	2	4	...	...	...
...	1	2	4	...	...	...
...	...	...	...	...	...	...
49	...	61	65	5	...	...
...	...	...	...	...	...	...
...	...	...	...	1827		...
385	779	149	250	239	94	131
3255	609	215	803	99	55	263
14	14	...	19	1	11	27
...	7	...	1	1	...	1
4	3	...	...	2	...	...
11	50	4	12	1	1	8
95	24	4	14	1	3	7
119	74	7	31	7	5	22
...	...	...	...	...	...	...
...	..	...	...	...	..	..
...	...	...	..	...	...	.
7	10	1	4	...	4	25
...	...	...	...	...	...	1
71	33	49	65	11	8	30
21	10	7	11	7	1	6
10	...	...	...	...	1	1
1	...	...	...	...	...	...
...	...	...	...	...	..	...
...	...	...	...	...	...	..

PERATIONS OF SANITARY SECTION FOR THE YEAR 1923—*Continued.*

	SOUTH-EASTERN.							SOUTH-WESTERN.					CITY.	1922.
25	26	27	33	34	35	36	37	28	29	30	31	32		
4	8	8	...	2	4	...	...	1	...	...	...	..	197	194
1	284	525	...	164	126	...	...	160	281	242	80	...	2979	3325
1	10	4	...	2	1	...	...	1	21	7	...	...	198	174
3	8	3	...	1	4	...	...	1	...	...	...	...	172	142
...	...	3	...	...	...	...	...	...	...	...	...	...	4	...
3	244	483	...	141	99	...	...	160	269	240	61	29	2341	2593
...	...	...	...	...	...	...	...	...	...	...	...	...	6	...
...	...	...	..	902		...	...	...	...	481		...	7583	10555
58	74	302	80	39	73	36	28	180	139	128	70	104	5407	5455
1	248	969	299	103	197	133	106	367	357	307	96	214	13977	15466
...	4	43	10	2	2	5	...	3	1	1	...	2	297	592
..	...	...	...	...	...	...	...	1	1	...	...	2	15	15
.	...	...	...	...	...	...	...	...	...	1	...	1	19	28
1	11	24	3	1	4	2	2	14	6	12	5	8	262	409
1	4	27	2	1	...	...	...	4	...	4	...	4	299	271
5	12	57	3	2	4	2	2	...	...	...	...	...	544	592
..	..	...	...	...	...	...	...	...	1	...	...	...	2	...
	...	...	...	...	...	...	...	...	1	...	...	...	2	...
..		...	...	...	...	...	...	...	...	..	...	...	...	...
21	58	113	16	5	28	48	14	15	26	3	8	28	852	843
	...	..	...	...	...	...	...	...	...	...	...	...	3	7
9	62	140	34	56	80	33	28	103	37	66	16	16	1885	1743
..	5	19	7	5	2	2	4	11	6	5	...	2	180	164
	...	..	..	...		...	...	4	1	2	4	...	64	36
	..	...	...	...	..	...	...	1	...	...	.	...	2	3
	...	...	...	...	...	...	...	1	...	...	...	...	1	2
	...	...	...	...	...	...	...	1	...	...	...	...	1	2

TABLE XXIII.—(*c*) SUMMARY OF OPERATIONS OF SANITARY SECTI

District.	EASTERN.							
Ward.	1	2	3	4	5	6	7	8
VIII. Common Lodging-houses and Boarding-houses for Emigrants and Seamen.								
Common Lodging-houses Inspected, Measured, and Registered, ...	...	...	...	...	...	...	...	
Number of Re-inspections by Day, ...	9	...	...	599	...	...	...	
Do. do. by Night, ...	3	...	...	60	...	...	...	
Do. Structural Defects found and remedied, ...	...	...	...	2	...	...	...	
Do. Intimations of Irregularities to Keepers, ...	...	...	...	3	...	...	...	
Do. Keepers summoned for contravening Regulations, ...	...	...	...	...	...	...	...	
Do. Keepers fined for contravening Regulations, ...	...	...	...	...	...	...	...	
Do. Removed from the Register, ...	...	...	...	...	...	...	...	
Total Number of Common Lodging-houses now on Register, ...	1	...	...	10	...	...	...	
With Accommodation for	402	...	...	2405	...	...	...	
Boarding-houses Measured and Registered,	...		...	...	...	...	...	
Total Number of Boarding-houses, ...	...	...	...	...	...	...	...	
With Cubic Capacity for	...	...	...	...	...		...	
Number of Re-inspections, ...	...	...	...	...	...	...	...	
Do. Intimations of Irregularities to Keepers, ...	...	...	...	...	...	...	...	
IX. Night Inspections								
(Of HOUSES TICKETED under GLASGOW POLICE ACTS, 1866 to 1890.)								
Total Number of Houses ticketed for first time during year, ...	...	...	...	...	...	...	...	
Total Number of Ticketed Houses, now on the Registers, ...	291	518	1239	1605	1300	393	67	1.
Total Number of Inspections for Detection of Overcrowding, ...	850	1689	3692	5269	4128	1366	268	37
Total Number of Cases of Overcrowding,	94	159	416	488	509	129	28	
Total Number warned by Inspectors, ...	94	159	416	488	509	129	28	
Total Number admonished by Magistrates in Police Courts, ...	...	...	...	...	...	...	...	
Total Number fined by Magistrates in Police Courts.	...	...	...	...	...	...	...	
Cubic feet of space in worst cases of Overcrowding, instead of 400, only	148	181	160	157	130	213	185	1
Number of Cases of Overcrowding in houses under 900 cubic feet of space, ...	...	2	8	23	15	...	...	

THE YEAR 1923—*Continued.*

NORTHERN.

10	11	17	18	19	20	21
..	...	...	...	...	...	...
...	53	48	16	...	...	5
..	2	12	3	...	...	1
..	...	...	..	...	...	...
.	...	...	...	...	...	...
	.	...	...	...	...	...
.	...	..	...	...	...	. .
..	...	...	...	...	..	...
...	2	4	1	...	...	1
...	403½	953	675½	...	...	158
	..	...	...	...	...	...
.	..	...	...	...	...	...
	..	...	...	...	...	...
..	..	...	...	...	...	. .
.	..	...	...	...	...	..
...	...	...	...	...	...	...
64	484	2579	1443	168	...	336
96	1398	6455	4411	698	...	306
34	247	809	522	79	...	36
34	247	809	522	79	...	36
...	..	...	...	...	...	...
...	...	...	...	...	...	...
180	180	133	114	240	...	242
3	9	41	6	...	...	1

TABLE XXIII.—(*c*) SUMMA

CENTRAL.						
12	13	14	15	16	22	23
...	...	...	...	...	...	..
99	95	45	52	...	...	1
25	95	20	4	...	...	
3	...	...	...	...	...	.
31	18	...	...	...	...	
...	...	...	...	...	...	.
...	...	...	...	...	...	.
...	...	..	...	...	...	.
8	5	1	1	...	...	
720	963	302	343	...	...	3
...	...	...	...	...	...	
...	20	5	...	...	...	
...	437	158	...	...	...	
...	30	44	...	...	...	
...	...	...	...	...	...	
11	...	...	...	...	...	
284	533	1452	847	...	...	2
941	2222	5843	3300	...	...	14
93	224	809	532	...	...	4
93	224	809	532	...	...	4
...	...	...	...	...	...	.
...	...	..	...	...	..	.
166	180	150	175	...	...	36
16	32	16	53	...	...	

RATIONS OF SANITARY SECTION FOR THE YEAR, 1923—*Continued.*

	SOUTH-EASTERN.							SOUTH-WESTERN.					CITY.	1922.
5	26	27	33	34	35	36	37	28	29	30	31	32		
...	..	1	...	...	...	...	...	...	...	...	...	...	1	...
2	...	20	...	...	...	...	...	42	49	55	...	...	1201	1467
3	...	9	...	...	...	...	...	6	...	4	...	...	250	237
...	...	...	...	...	...	...	...	...	...	...	...	..	5	...
...	...	2	...	...	...	...	..	...	5	12	...	..	75	66
...	...	..	...	...	...	...	..	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	..	1
1	...	2	...	...	...	...	...	1	2	1	...	...	42	41
364	...	861½	...	...	...	...	...	450	947	407	...	...	10666½	10281½
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	1	...	...	26	26
...	...	...	...	...	...	...	..	...	...	53	...	...	648	648
..	...	...	...	...	...	...	...	...	...	12	...	...	86	382
...	...	...	...	...	...	...	..	...	...	...	...	...	...	21
.	...	..	...	...	...	...	...	...	...	...	...	...	11	...
...	317	1783	...	...	...	...	...	849	78	578	...	108	19160	19161
..	1148	5643	..	...	...	...	...	3947	546	2156	...	864	62325	56156
...	87	358	...	...	...	...	...	497	41	227	..	111	7622	6422
..	87	358	...	...	...	...	..	496	41	227	...	110	7620	6421
.	...	...	...	...	...	...	..	...	...	...	...	...	...	1
..	...	...	...	...	...	...	...	1	...	...	...	1	2	...
..	190	144	...	...	...	...	...	169	200	228	...	133	114	106
..	...	22	...	...	...	...	...	12	...	...	...	...	287	202

TABLE XXIV.—GLASGOW.—POPULATION; BIRTHS AND DEATHS; BIRTH-RATES ND DEATH-RATES PER 1,000; ALSO DEATHS UNDER 1 YEAR, AND DEATH-RATES PER 0 BIRTHS SINCE 1860.

Year.	Population.	Births.	Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.	Deaths under 1	
						Number.	Ra per 100 Birt
1860†	389,843	15,943	12,436	40·8	31·9	2,905	1
1861	397,673	16,537	10,936	41·6	27·5	2,544	1
1862	405,789	16,400	11,565	40·4	28·5	2,562	1
1863	413,944	16,986	13,329	41·0	32·2	2,774	1
1864	420,738	17,411	13,674	41·4	32·5	3,051	1
1865	428,123	17,956	13,914	41·9	32·5	3,097	1
1866	437,850	18,288	12,829	41·8	29·3	2,905	1
1867	446,028	18,347	12,578	41·1	28·2	2,895	1
1868	455,000	18,607	13,832	40·9	30·4	3,127	1
1869	464,332	18,495	15,648	39·8	33·7	3,411	1
1870	471,453	19,355	13,955	41·1	29·6	2,991	1
1871	491,900	18,867	15,790	38·4	32·1	3,608	1
1872	494,824	20,158	14,053	40·7	28·4	3,198	1
1873	494,847	19,487	14,499	39·4	29·3	3,255	1
1874	498 270	20,039	15,845	40·2	31·8	3.240	1
1875	499,480	20,825	15,384	41·7	30·8	3,388	1
1876	502,299	20,981	13,763	41·7	27·4	3,166	1
1877	504,487	21,124	13,823	41·9	27·4	3,106	1
1878	507,420	20,622	14,157	40·6	27·9	3,285	1
1879	508,048	19,751	12,498	38·8	24·6	2,504	1
1880	509,732	18,912	13,304	37·1	26·1	2,842	1
1881	512,034	19,106	12,916	37·3	25·2	2,745	1
1882	517,904	19,735	13,046	38·1	25·2	2,959	1
1883	523,154	19,911	14,577	38·1	27·9	3,091	1
1884	528,459	20,557	13,942	38·9	26·4	3,094	1
1885	533,817	19,861	13,492	37·2	25·3	3,100	1
1886	539,231	19,862	13,104	36·8	24·3	2,786	1
1887	544,700	19,328	12,135	35·5	22·3	2,676	3
1888	550,226	19,309	11,681	35·1	21·2	2,560	3
1889	555,808	19,503	13,139	35·1	23·6	3,008	4
1890	561,447	19,279	13,374	34·3	23·8	2,880	9
1891	567,143	19,857	14,324	35·0	25·3	2,946	8
1892	669,059*	22,815	15,218	34·1	22·7	3,168	9
1893	677,883	23,173	15,798	34·2	23·3	3,649	7
1894	686,820	22,644	13,673	34·0	19·9	2,937	0
1895	695,876	22,803	16,344	32·8	23·5	3,538	5
1896	705,052	24,029	14,385	34·1	20·4	3,278	6
1897	714,919	23,880	15,727	33·4	22·0	3,826	0
1898	724,349	24,262	15,333	33·5	21·2	3,792	6
1899	733,903	24,249	15,828	33·0	21·6	3,696	2
1900	743,969	24,362	16,393	32·7	22·0	3,778	3
1901	761,925	24,206	16,197	31·8	21·2	3,607	9
1902	762,789	24,722	15,532	32·4	20·4	3,206	9

* Extended City.

† For earlier years, see Report for 1910, Table liii.

TABLE XXIV—*Continued.*

ear.	Population.	Births.	Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.	Deaths under 1 Year.	
						Number.	Rate per 1,000 Births.
903	763,654	25,135	15,073	32·9	19·7	3,663	146
904	764,521	24,754	15,414	32·4	20·2	3,606	146
905	765,389	24,316	14,460	31·8	18·9	3,195	131
906	780,192*	24,560	14,889	31·5	19·1	3,223	131
907	781,080	24,006	15,659	30·7	20·0	3,116	130
908	781,969	23,915	15,265	30·6	19·5	3,284	137
909	782,860	23,140	15,242	29·6	19·5	3,073	133
910	783.785	22,222	13,395	28·4	17·1	2,694	121
911	784,680	21,755	13,899	27·7	17·7	3,016	139
912	785,600	22,044	13,797	28·1	17·6	2,740	124
913‡	1,021,789	28,688	17,693	28·1	17·3	3,706	129
914	1,028,440	29.462	17,522	28·6	17·0	3,913	133
915	1,035,091	27,943	20,159	27·0	19·5	4,007	143
916	1,041,742	27,094	16,601	26·0	15·9	2,996	111
917	1,048,393	24,030	16,691	22·9	15·9	3,089	129
918	1,055,044	23,524	18,362	22·3	17·4	2,660	113
919	1,061,695	25,835	18,237	24·3	17·2	2,937	114
20	1.068,346	32,626	16,765	31·5	15·7	3,477	107
21	1,075,000	29,712	15,625	27·6	14·5	3,138	106
22	1,081,933	28,298	17,850	26·2	16·5	3,401	120
23	1,088,987	26,710	14,875	24·5	13·7	2.388	89

* Extended City.

‡ Births and Deaths from 1913 are corrected for transfers.